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THE PRESENT STATUS OF THE TEACHING OF ORTHOPEDIC SURGERY IN THE UNITED STATES.

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Read before the American Orthopedic Association, June, 1901.

I have for presentation to you at this time some inferences, which are drawn from rather imperfect data, I fear; but it did not prove possible to get, on the subject of this paper, data much more accurate, and so I have used them as they were presented to me. I wished to see if any plain mark could be found outside of the association which would show the influence of the association on orthopedic thought or orthopedic education and study, a mark that would be obvious evidence that the association was doing something more than train to higher degrees of proficiency the specialists and general surgeons who make up the membership, a mark that would indicate that the Orthopedic Association was concerned, more or less intimately, with the development of orthopedic science and art, which certainly has taken place in the last decade in the United States. To have answered this question completely would have required a knowledge of the personal histories of all the men engaged in teaching or in practising exclusively or chiefly, orthopedic surgery; at least it would have required a record of their medical studies, including the names of the schools and of the teachers in which and with whom they had studied. The gathering and classifying of this mass of statistics would have been a task which my time forbade me to attempt, and it seemed more feasible and easier of accomplishment to get the record of schools instead of that of individual teachers or practitioners. Postal cards were, therefore, addressed to all the colleges of medicine that were members of the Association of American Medical Colleges, merely asking for their catalogues, announcements, or circulars. There are seventy-six of these, and answers were received from all, and from not a few came also personal letters soliciting my attendance as a student, for my postals did not disclose the fact that I was already a graduate in medicine.

Of the seventy-six colleges only thirty-eight mentioned orthopedic surgery as being taught, either by a professor or lecturer, either didactically or clinically. This is not a particularly good showing; in fact, it is particularly bad, for it shows that only half of the representative medical schools of the United States consider orthopedic surgery of sufficient importance to even cursorily mention the teaching of it. In a certain way this is also something more than mere oversight, for of these same schools, sixty, that is about 79 per cent, specialize gynecology; fifty-nine, that is, about 77 per cent, specialize pediatrics; and fifty-eight, that is about 76 per cent, specialize neurology, while the only recognized specialty which has a lower percentage of representation in these schools than orthopedic surgery is genito-urinary surgery, which is taught in only thirty-seven, or about 49 per cent.

The statistics regarding ophthalmology, otology, rhinology, and laryngology were not taken from the catalogues.

These are such old established lines of special work that it was assumed that they would be represented by special teachers on the faculties of all the schools.

The high percentage of representation which gynecology has is not surprising, for the gynecologist was the pioneer in abdominal surgery, and that particular region is to-day the most attractive field for surgical work, both because of the undoubted interest of its problems, solved and unsolved, and also because of the larger monetary reward that it secures. That pediatrics should have so high a percentage, comparatively, of representation is surprising, for, as a modern specialty, it is not old, and the American Pediatric Society was founded in 1888, one year after our own organization. However, pediatrics deals chiefly with acute chronic conditions; the fatiguing element of chronicity is not inherent in a larger part of its practise, and this may be taken as part explanation of its more readily securing special practitioners. As another factor of the explanation, the antitoxin treatment of diphtheria may be counted, a treatment that could not fail to develop a body of special workers, who naturally became pediatrists; in fact, I have read papers on this subject, written by men who announced themselves as specialists for the treatment of this disease, thus making a specialty within a specialty. Finally, it must not be overlooked that the activity of the American Pediatric Society may easily have influenced many to study particularly, and to practise wholly or chiefly, pediatrics, a specialty that requires comparatively little specialized skill, but rather the specialized application of well-understood general principles; and that is easily made his own by the accoucheur and the general practitioner.

Neurology, however, is nearly as popular a specialty as pediatrics, and yet it rivals orthopedic surgery in the chronicity of many of the conditions it treats, and is much more limited in its opportunities for treatment which may be radical or successful; in fact, oftentimes its practitioner is limited to scientific watchfulness over his patient and the course of his ailment. It seems to me to be the specialty *par excellence* for the student, the contemplative man, who is happy in watching the evolution of a natural process, or who takes particular pleasure in unraveling the unquestionably difficult problems it presents. Certainly the neurologist who can say to the surgeon, "Open this head at that place, and you will find a tumor,' and who can oversee the work and find his prediction true, has a very satisfactory measure of reward for his labor; and I have thought that, in some instances, the satisfaction at the demonstration of diagnostic accuracy was almost as great as if the evidence was procured on the necropsy table.

Genito-urinary surgery, taught as a special branch of surgery in only 49 per cent of these schools, saves orthopedic surgery from being the lowest in the list. It can not be because of lack of material that this is so, nor because the sufferer is indifferent concerning his condition, and not solicitous about his recovery. It must be because the general surgeon still considers that genito-urinary surgery is his own, just as, in many instances, he thinks that orthopedic surgery is his own, and he continues to practise each specialty as a part of general practise. I am sure that the verdict of the public is a true one, and that the demand for a specialist, even in these two branches, is a just one, for the general surgeon too often in orthopedic cases lets his instrument-maker indicate the line of treatment, by suggesting and making a brace, or shows himself to lack full appreciation of the mechanical ideas underlying brace-work. Probably the specialist in genito-urinary surgery would have parallel criticisms to make.

To the thirty-eight colleges which announced in their catalogues instruction in orthopedic surgery, circular letters were addressed, asking the date at which instruction had been first begun, but only twenty-eight answered my question. Of this twenty-eight, only six had included the subject in the instruction given before 1887, the year of the founding of this association. These were the Bellevue Hospital Medical College, where our Doctor Sayre gave his well-known lectures; the Detroit College of Medicine, which began special orthopedic instruction in 1875; the St. Louis College of Physicians and Surgeons, which began special instruction at the opening of the school in 1879; the College of Physicians and Surgeons, University of Illinois, which established a separate chair in orthopedic surgery in 1883; the Western Pennsylvania Medical College, which has taught it by a special teacher for a period of sixteen years; and possibly the Iowa College of Physicians and Surgeons, in which the first course of lectures on medicine was delivered in 1883 or 1884, regular instruction by a special teacher in orthopedic surgery following two or three years later. Rush Medical College had a professor of orthopedic surgery about sixteen years ago, but the chair has been vacant for some years; and the same is true of the Medical Department of the University of California. It seems incredible that this meager list should include all the places where the subject was specially taught prior to 1887, but yet the list is accurate so far as the replies to my inquiry are concerned; and, in view of the scant attention paid to our subject such a short while ago, one can easily imagine the gap which the post-graduate schools came to fill.

Since 1887 nineteen colleges, according to the replies I received, have inaugurated the teaching of orthopedic surgery, or have been founded and included chairs on this subject in the original faculty. In 1888 the University of Minnesota was founded, and taught the subject from the beginning. In 1889 Harvard inaugurated its teaching in its medical department, and Jefferson Medical College appointed a clinical lecturer. In 1890 the Woman's Medical College of Pennsylvania appointed a clinical professor of orthopedics, and the University of Buffalo is said to have taught it at the same time. The Cleveland College of Physicians and Surgeons reports that orthopedic surgery was first taught in 1890, and the chair has remained ever since. In 1891 the Omaha Medical College established a special chair in orthopedic surgery. In 1892 the Barnes Medical College was established, and taught orthopedic surgery from its beginning; and in 1893 the Wisconsin College of Physicians and Surgeons and the Jenner Medical College came into existence, and also taught it from their beginnings. In 1894 the Yale Medical School appointed a special lecturer, and the Medical Department of the Columbian University inaugurated a special course in orthopedic surgery. In 1895 the Kansas Medical College began teaching the subject, and the College of Physicians and Surgeons in New York appointed a clinical professor of orthopedic surgery. In 1896 the Rush Medical College and the Medical Department of the University of California resumed the teaching of orthopedic surgery, the Creighton Medical College established a chair, and Tuft's College Medical

School appointed a special instructor. In 1897 the Medico-Chirurgical College of Philadelphia appointed a professor of orthopedic surgery, and the Illinois Medical College did the same. In 1898 the Milwaukee Medical College established didactic teaching by a special teacher.

Of the twenty-eight replies, three were so ambiguous as to be useless in this particular, and it must be acknowledged that the dates here given may not be, in each instance, correct, for many of the replies mentioned only an approximate time as that at which this instruction had been begun, and did not give a definite date. But, while there may be slight inaccuracies, the statement in general is true that all of the principal medical schools of the country which did not teach orthopedic surgery prior to 1887 have since begun to do so, and that all the schools which have been organized since 1887 have included a teacher of orthopedic surgery in the original faculty. As a broad inference from the few figures here collected, it may be stated that since the organization of our association in 1887 the number of teachers of orthopedic surgery in this country has been more than quadrupled.

To bring this a little closer to our association, it is necessary to see what representation we have in this body of teachers; and it is plain that it is a very good one, for of our fifty-one active members, twenty-six are engaged in teaching orthopedic surgery, in the following twenty-three medical schools: Harvard University Medical School, Rush Medical College, College of Physicians and Surgeons in New York, Minnesota State University, Chicago College of Physicians and Surgeons, Missouri Medical College, Woman's Medical College in New York, University of Minnesota, Denver University, Tuft's Medical School, University of the City of New York, Northwestern University, University and Bellevue Hospital Medical School, Medical Department Columbian University, Medical Department University of California, Medical Department Washington University, Woman's Medical College in Baltimore, Baltimore Medical College, Medical Department of University of Niagara, University of Pennsylvania, Jefferson Medical College, Medical Department University of Wooster, Woman's Medical College in Philadelphia. This list takes no account of post-graduate instruction.

Taking thirty-eight as the approximate number of medical schools in the country, which, according to their announcements, teach orthopedic surgery, we have representation in 60 per cent of them; and taking into consideration the type of medical school which the majority of the schools in the country represent, and the complex qualifications which we require of a candidate for election, it would seem that the association should be content with this, and neither seek to get its members into other and newer schools, nor to hold out inviting hands to all the teachers of orthopedic surgery in the new schools who are not already of our membership. With this representation we can not fail to influence the thought of the day in orthopedic surgery; it is not possible that, with 60 per cent of the teaching of orthopedic surgery in our hands, there should not be a steady increase in the amount of correct orthopedic principles known and practises applied by the general practitioner, and an occasional evolution, out of the general mass of physicians and surgeons, of an orthopedic surgeon who will be a new pioneer, and will carry the art to a still higher point of development.

Turning again to the catalogues and announcements of the schools that claim to teach orthopedic surgery, we find that there are twelve that content themselves with the bald statement of this fact, and say nothing of the methods of instruction employed nor of the time devoted to it; and this omission must detract from the value of the general announcement of instruction, for the work is very probably not systematic nor in any way a prerequisite for graduation. These are: St. Louis College of Physicians and Surgeons, Milwaukee Medical College, Columbian University, Rush Medical College, Jefferson Medical College, Kansas Medical College, Medical College of Indiana, Sioux City College of Medicine, Louisville Medical College, Baltimore University, Western Reserve University Medical College, and Hamline University.

Nine schools limit the teaching to didactic lectures, eight giving one hour a week during the term; and these are: Iowa College of Physicians and Surgeons, University of Illinois College of Physicians and Surgeons, Jenner Medical College, Creighton Medical College, University of Omaha, Marion-Sims College of Medicine, Albany Medical College, and the Illinois Medical College; while the Cleveland College of Physicians and Surgeons gives one-half hour a week during the term.

In thirteen the instruction is entirely clinical. Of these, five,—the Detroit College of Medicine, Western Pennsylvania Medical College, University of California, University of Denver, and University of Buffalo,—give one hour a week. Three,—the Medico-Chirurgical College, Tuft's Medical College, and Barnes Medical College,—give two hours a week. One, the Northwestern University Medical School, gives one hour a week throughout the term, and three hours extra a part of the time. One, the College of Physicians and Surgeons in New York, gives one hour a week throughout the term, with twelve hours' section instruction in addition for each student in the fourth year. One, the Cornell University Medical College, gives one clinical lecture per week, and with two hours' section demonstration per week for two months. Two, the Woman's Medical College of Pennsylvania and Ohio Medical University, do not mention the time. Five schools announce both didactic and clinical instruction; Harvard, one hour didactic and two hours clinical per week; Yale, didactic and clinical, one hour per week, presumably for both; University of Minnesota, two hours didactic and one hour clinical per week; Woman's Medical School of Northwestern University, one hour per week, divided between clinical and didactic; the Grand Rapids Medical College; but this institution, while making the broad announcement of clinical and didactic instruction, makes the unhappy mistake of neglecting to state the time assigned to these.

There is an opportunity here for considerable criticism, and it can be directed without reservation against those institutions which teach orthopedic surgery by didactic lectures alone. One might as well try to make an artist, or a sculptor, or a musician by didactic instruction. Orthopedic surgery uses, to an enormous degree, the hands of its practitioners. The technique of the application of dressings and braces to develop corrective or restraining force requires manual skill as well as scientific knowledge, and the art can not be known except by practise. It is a satisfaction to note that this association is not interested in any of these schools.

In the schools where the instruction is

wholly clinical a much better method is, in general, observed, but from the information in the catalogues I can not learn how much the instruction individualizes the student. To watch an expert at work is immeasurably superior to hearing his methods described, but there is a great degree of difference between merely looking on and trying to educate your own fingers. It is this finger-and-hand education that the student needs, and clinical methods which do not give him an opportunity for personal acquaintance with plasters, webbings, buckles, braces, and the plaster-of-Paris bandage, and, more important still, the ability to handle the limbs of children without hurting them, the knack of moving his own body to change his position without moving his hand, which must keep the child's limb immovable—the clinical method which does not, I say, accomplish some or all of this must, in a large measure, fail of its object.

The plan of instruction which uses both didactic and clinical methods I consider the best. There are certain special principles underlying correct orthopedic practise which a teacher of general surgery is most apt to slur or omit, and the teacher of orthopedics has a definite duty in elaborating them in lectures devoted to that purpose, so that the student may understand fully their scope and their limitations. They can not be given adequate attention on particular cases at the bedside and in the outdoor clinic. Again, while it is true that, with the improvements in the methods of teaching pathology, the need for lectures on what is called "surgical pathology" is lessening, still the teacher of surgery constantly refers to pathology to make a special application to the condition under discussion, and so the teacher of orthopedic surgery must discuss, for one thing, tuberculous conditions in bone, not to teach the pathology of tuberculosis, but to make a special application of the general principles the student has learned in the pathological laboratory, and this can best be done, I think, in didactic lectures in which the pathological and clinical conditions shall be brought into the relation of cause and effect, and the whole be so graphically described that they shall make what might be called a composite photograph on the student's mind, so that where he sees one he must of necessity think of the other. With the didactic instruction there should be associated individual training in the clinic. The clinic should be a manual training school, in which the eye and hand should be taught to perfectly cooperate to the production of the best-finished product.

I know perfectly well the difficulty in finding, in the time allotted to the study of medicine, the hours which may be devoted to this; if the subject is not specialized and the assignment of time is left to the faculty at large, the time will not be given. But in all schools where orthopedic surgery is specialized, its teachers must stand for proper recognition, and demand and secure ample time. One hour a week is too little; two hours a week, or about one hundred and twenty hours a year, is none too much, and of these, one hundred hours should be spent in the clinic, and not more than twenty hours in didactic work.

I do not need, before this association, to plead for the teaching of orthopedic art, but I can not help referring to one view of the matter which is too often overlooked. It is not as a sentimentalist that I mention the child's age and his helplessness. It is because the acts committed on him when he is helpless and young reach out and affect him when he is neither. The old can get, at best, but a few years of benefit from any surgical procedure, and no matter how grateful that benefit may be, its enjoyment in time is limited. The middle-aged may have only the last half of life made or marred by surgery. But the child has to be contented or discontented for all his life with the result of the orthopedist's work, and the physical conditions, especially in regard to deformities, affect so much the mental state that the physical success or failure, in even a minor matter, may easily tell for good or evil in the final development of a mind and the shaping of a character. I am sure that keeping a spine straight, securing a satisfactory functional result after a joint tuberculosis, properly correcting a malformed foot or a twisted limb, is doing infinitely more than mechanical work on living tissues. In restoring an individual to physical likeness to his fellows we are possibly returning him to unison and harmony with all the good thoughts and acts of men, instead of leaving him, in his own mind, specialized, individualized, and even stigmatized by some marring deformity. We have all of us met this man, we have heard his bitter denunciation of those who were responsible, as he thought, for his condition; and, while usually his judgment is as twisted as his body and is wholly unjust, the bitterness of his words is unmistakable. Let us look to it that all the knowledge we possess may be so made use of that an ever-widening field for its helpful practise may be assured.

Postscript.—The University of Pennsylvania appointed a lecture on orthopedic surgery in 1877, and so was among the earliest to teach the specialty. In 1889 the appointment was changed to clinical professor of orthopedic surgery. The orthopedic department now has a special ward, a special amphitheater, a gymnasium, and is thoroughly equipped as a department of the hospital. The students have three hours per week of work, one clinic, one demonstration, didactic lectures, and one hour of class work in the ward. These facts are, unfortunately, omitted, as a University of Pennsylvania catalogue was not furnished.

CHROMIC ACID AS A CAUSTIC IN THE TREATMENT OF EPITHELIOMA OF THE SKIN.

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Read before Medical Society of State of California, April 16, 17, 18, 1901.

My attention was first drawn to the use of chromic acid by Dr. J. Rosenstirn, who related, during a discussion, the case of a patient suffering from an ulceration of the lower lip, diagnosed as cancer, but who refused operation. The ulcer was burned out by pouring pure chromic acid crystals on it and tamping them down with a sharp instrument. The ulcer had healed, and, although several years had elapsed since the treatment, there had been no recurrence.

Only those cancerous growths that are situated on the skin, and are superficial, are suitable for treatment by caustics. The deep cancers, even of the skin, are best treated by excision. In eliminating cancerous growths, the object is complete destruction, as anything short of annihilation of the disease does harm, on the principle that whatever irritates causes an increased vegetative activity. A great many agents may be used for killing diseased tissue, but this paper is limited to the consideration of one agent,—chromic acid. It is not wished, however, to convey the impression that this is the only caustic advocated in such cases; it is spoken of as being a good agent when rightly used, and a therapeutist should know the use of a large number of agents, so that he may employ this one or that, as occasion requires.

We have now used chromic acid for a long time, both in the University Clinic and in private practise, and have found it an excellent agent; but under certain circumstances it may fail. In the first place it is necessary to see that the crystals are very dry, as they are hydroscopic, and when wet are of no use. Then, again, before cauterizing an ulcerated surface, all friable, diseased tissue should be well scraped away, until the curette comes down on a hard, solid base; and, before applying the acid, the wound should be allowed to dry perfectly. This dryness of the wound is necessary, because, as above mentioned, moisture is quickly taken up by the acid, rendering it inert. Ordinarily waiting for the drying to take place is very tedious, for, after the scraping, there is oozing of blood, and, after the bleeding ceases, there is oozing of serum. This drying may be accelerated, however, by the use of supra-renal extract solution. If the supra-renal extract solution is not at hand, it is sometimes well to wait till next day before applying the chromic acid. In such case the crust that is formed overnight should be peeled off, and then chromic acid applied to the dry, raw surface. The crystals should be poured on the wound, and tamped down with a pointed instrument. The chromic acid becomes dark red and fluid, and any excess can be soaked up with dry, absorbent cotton. A few filaments of absorbent cotton should now be pressed into the cauterized surface and allowed to dry, no other dressing being applied. The filaments of cotton, the chromic acid, and the cauterized tissue form a tough, dense, leathery, tightly-adherent scab. All the micro-organisms of the wounded surface are killed, and no new ones can enter. It is an ideal antiseptic dressing, under which healing goes on without disturbance. A surface about the size of the thumb nail will heal completely in about five weeks. After a time the edges of the leathery scab begin to lift, and some pus formation usually takes place; but this generally occurs at a time when granulation is well under way, and when all danger of extensive infection is past. As the edges of the scab lift and curl up, they may be clipped away, and a dry powder, such as boracic acid, dusted in under the edges, to absorb the secretions. On the first application of the chromic acid on the raw surface, the pain is quite sharp; but it rarely endures longer than fifteen or twenty minutes. The resulting scar is usually a good one. I have seen some scars that were hypertrophic, and at first looked very much like a return of the original disease; but, after a time, they flattened out, and became paler. The advantages of chromic acid are that it penetrates into the tissues, and that it forms an impervious, tightly-adherent, and absolutely antiseptic dressing.

The following are some cases where the chromic-acid treatment was employed:—

On April 8, 1894, Dr. Benjamin R. Swan and myself removed two epitheliomas of the skin from an elderly man, by curetting and cauterization with chromic acid. One of these epitheliomas was situated over the left malar prominence. It never returned. The other was situated over the right mastoid process; and toward the latter part of 1896 it had returned. It was again curetted out, on Nov. 15, 1896, and cauterized with chromic acid. On Aug. 28, 1899, it had again returned, and was then cut out, and formalin, 40 per cent, applied to the raw surface. For a long time the scar remained raised and suspicious looking, but afterwards flattened out and became white. The patient died in January, 1901, with no recurrence. The original lesions and the recurrences were shown, by microscopical examination, to be epitheliomas. At the last operation I explained to the patient, when about to apply the formalin, that it was a kind of alcohol. He took this information blandly, and said he knew alcohol fairly intimately, and therefore did not feel an entire stranger to its chemical relative. It was a good, fresh article, and burnt atrociously. The patient maintained, while expressing himself strongly, that he never knew any alcohol could burn like that.

On July 31, 1895, a man, aged 43, consulted me for a shallow ulcer on the left side of the nose high up. The ulcer was painless, and had a walled upper and a nodular lower edge. It was curetted and burned with chromic acid, on Aug. 13, 1895. A microscopical examination of the curettings showed epithelial infiltration, with a good deal of inflammatory infiltration. On Jan. 5, 1896, the patient consulted me again, on account of some greasy, yellow scales at the lower angle of the scar. There never, however, was any return of the disease. The patient died some years later, under the care of Dr. MacMonagle, of a malignant disease in the pelvis, which was probably a sarcoma.

On Sept. 16, 1895, a woman, aged 54, was referred to me by the the late Dr. Beverly Cole. She had a crescentic ulcer on the right wing of the nose, which was covered with edematous granulations. She said the affection had begun 17 years before as a pimple. Latterly the disease had spread very rapidly, covering the whole tip of the nose with bleeding granulations. The patient was sallow, and the lymphatic nodules under both sides of the lower jaw were enlarged. She had a sister, aged 56 years, in whom a cancer had eaten away the entire right wing of the nose, and was advancing on the cheek. My patient had previously been treated by a "cancer doctor." With the assistance of Dr. Jas. F. McCone, I scraped out the entire diseased area, and burned it down with chromic acid. Microscopical examination showed the disease to be an epithelioma. One year afterwards, on the 28th of September, 1896, it was noticed that there was a brown, adherent, pin-head-sized scab at the upper edge of the scar of operation. The scab fell occasionally, and left a red surface. There was still slight enlargement of a lymphatic nodule under the right side of the lower jaw. After another year had passed, on Aug. 14, 1897, she again called on me. The above-noted trouble had suppurated during the previous week, and was now covered by a dirty, adherent crust. There was no doubt about its being a recurrence of the epithelioma, and it was scraped out on Aug. 18, 1897, and the base cauterized with chromic acid. I heard from the patient a few weeks ago, that she was perfectly well.

On Dec. 23, 1895, a man, aged 77, consulted me for an epithelioma, situated over the right mastoid process, and extending into the shell of the right ear, where it had eaten through the lobe. There was no lymphatic engorgement. The ulcerated surface was well scraped out, the lobe of the ear snipped off, and the whole surface cauterized with chromic acid. This patient is still alive, with no recurrence of the cancer. Microscopical examination showed the disease to be an epithelioma.

On the 13th of April, 1896, a woman, aged 36, consulted me on account of a sunken scar with raised edges, and a crescentic ulcer on one edge of the scar, situated on the bridge of the nose. The neighboring sebaceous follicles were very large. The edges of the ulcer could be seen to be infiltrated with epithelial cells. The ulcer itself was flat and shallow, and covered with typical red granulations.

The patient said that the disease was first observed thirteen years before, as a brown sunken spot. The whole lesion was scraped out, and burned down with chromic acid. Healing took place uneventfully, but track has since been lost of the patient.

On Aug. 8, 1896, a man, aged 58, consulted me on account of a rodent ulcer on the bridge of the nose, which was scraped out, and the surface cauterized with chromic acid. There has been no recurrence.

On Dec. 23, 1896, a man, aged 72, consulted me on account of a pea-sized, red, tableland-like elevation on the right cheek. It was treated with ointments, principally white precipitate and oxide of zinc ointment, for one year. By Dec. 24, 1897, it had grown slightly, and had developed symptoms, showing it to be undoubtedly an epithelioma. It was scraped out, and burned with chromic acid. There has been no return.

On June 20, 1898, Dr. Howard Cameron and I removed an epithelioma from the left side of the nose of a man 36 years of age. The lesion was slightly elevated and flattened, and was about one-quarter of an inch in diameter. It was curetted and burned with chromic acid, and there has been no recurrence.

A man, aged 49, was sent to me on May 8, 1899, by Dr. MacMonagle. He was suffering from an epithelioma, situated over the anterior part of the shell of the right ear. The tragus had been previously cut away. Epithelial pearls were present on all the edges, and the diseased process had crept up as a seborrheic eczema along the junction of the ear with the head. Six years before it had been burned out, and had recurred in six or eight months. I curetted out the diseased area, and cauterized it with chromic acid. Some months afterwards I heard that the disease had again returned. I do not think I should ever again operate in this way on an epithelioma that extended into the external meatus, as this one did. Such cases should be passed on to the general surgeon, who would operate by laying forward the shell of the ear, and so exposing freely the field of operation.

About the same time as the operation on the above patient took place, Dr. Geo. H. Powers sent me a man, between 30 and 40 years of age, with an epithelioma of the shell of the ear, which I treated by curetting and the application of chromic acid. The wound healed without incident, but I do not know anything of the patient's subsequent history.

On May 1, 1900, Dr. W. D. Clark sent me a patient, a man aged 65, suffering from an epithelioma of the contracting variety, situated on the right side of the neck. A scab had appeared on the right side of the neck ten years before. About seven or eight years thereafter it became an open sore. The epithelioma had rolled edges, and a long, fissure-like, ulcerating surface. The fissure-like surface extended from behind and above, downwards, forwards, and inwards, in the same direction, and over the sterno-cleido-mastoid muscle. At the lower end of the ulcer the skin was puckered up into deep, radiating wrinkles. About one inch above the upper end of this epithelioma there was a split, pea-sized, soft epithelioma. Latterly both lesions had grown rapidly. There was some itching and some pain under the right ear. The patient was suffering from chronic nephritis, but enjoyed very good health. Both lesions were freely removed with a knife and scissors. When the skin was released from the pull exerted on it by the epithelioma, it sprang back, leaving an enormous surface. The wound was a long time in healing, but when I saw him, on Dec. 19, 1900, it was nicely closed, with a smooth and a surprisingly small scar. Subsequently to the operation there developed some sensory disturbances of the cervicle plexus, possibly from implication of the nerves in the scar. In this instance, after pouring the chromic acid on the wound, we had a most tedious time with the bleeding. Every time the patient would grunt with pain, the vessels of the neck would fill, and the bleeding would start afresh.

On Oct. 17, 1900, a woman, aged 67, was sent to me by Dr. H. C. Moffitt. She had an elevated, rounded, little finger-nail sized, non-ulcerated epithelioma at the root of the nose, just where the bridge of the spectacle frame rides. There was no pain or other disagreeable sensations. The growth had been first noticed in 1898, and just previous to coming to me it had begun to grow rapidly. The lesion was scraped out and the raw surface burned with formalin, 40 per cent strength. On seeing the patient a couple of days afterwards, it seemed to me that the formalin had acted insufficiently, and I burned down the ulcer with pure chromic acid. Microscopical examination by Dr. Howard Morrow showed it to be an epithelioma. Healing took place uneventfully, but too short a time has elapsed to expect a recurrence.

The failure of the formalin in this case is worthy of notice. Formalin rapidly evaporates, leaving the solution too weak for caustic purposes, and, unfortunately, there seems to be no ready way of determining if it is of proper strength; and this, it seems to me, is one of the bad features of this drug, in which it falls decidedly behind chromic acid, where the good condition can be readily seen in the dryness and brightness of the crystals.

It might be said that every one of the above lesions might have been treated just as well with other means, such as the actual cautery, for instance. The actual cautery, however, has one great disadvantage, in the terror it inspires. The pain caused by chromic acid is probably as severe as that of the actual cautery, but the mental disturbance is much less. Then, again, as far as my experience goes, the scab of chromic acid is much firmer, tougher, and more enduring than that of the actual cautery; and this is an important matter in the subsequent healing of the wound.

1301 Van Ness.

A CASE OF CESARIAN SECTION.

By Charles R. Harry, M. D., Stockton, California.

Read before California Northern District Medical Society, June 11, 1901.

On March 17 I was called at 8 A. M. to see Miss ———, a dwarf, age twenty-seven. I found her in labor at full term. Pains had commenced at midnight, and were now very strong. The sac had not ruptured. By vaginal examination I found the false conjugate diameter of the pelvis to be only two and one-eighth inches. Abdominal palpation showed that the head was large, and that the child was living. The external pelvic measurements were: between anterior superior spinous processes of ilium, eight and one-quarter inches; and between the widest part of iliac crests, nine and one-quarter inches. The patient's height was four feet. The distance from anterior superior spine of ilium to external condyle of femur was ten and one-half inches, and from anterior superior spine to the external malleolus was nineteen and one-fourth inches. To try a high forceps operation or perform version was out of the question. Sufficient space for delivery could not be gained through a symphysiotomy, and as the child was living, I did not wish to sacrifice it by a craniotomy, so the only resource left was Cesarean section. Kelly says Cesarean section is always indicated with a living child when the true conjugate diameter is two and five-eighths inches or less. The distance from the lower border of the symphysis to the promontory of the sacrum was two and one-eighth inches, making the true conjugate diameter about one and five-eighths inches. As the hygienic surroundings were bad, the patient was removed as soon as possible to St. Joseph's Hospital, and preparations were made for an immediate operation. I was assisted by Drs. F. R. Clark, Maddock, Knight, Hudson, and Priestly. After the patient had been anesthetized, she was examined by the doctors present, and they concurred in my decision to perform Cesarean section.

The operation was commenced at 11 A. M., eleven hours from the commencement of labor. The uterine contractions were strong, and the membranes had not ruptured. An incision five and one-half inches long was made in the abdominal wall, extending from a point one inch above the symphysis to a point one inch above the navel. The uterus was opened by a longitudinal incision four and one-half inches long. As the hemorrhage was profuse, an assistant compressed the uterine arteries. The sac was then opened, and the child removed. It was passed to an assistant, who ligated the cord and established respiration. The placenta was attached to tne posterior surface of the fundus. It was removed through the uterine incision. The cavity of the uterus was scrubbed out with gauze, and as a little liquor amnii and blood had escaped into the peritoneal cavity, it was also sponged out, but not irrigated. The uterine wound was closed with two rows of interrupted silk sutures, one row including all the tissue except the mucosa directly approximating the cut edges. The second row caught up the peritoneum about half an inch from the edge of the wound, and brought the serous surfaces together with the first row of sutures. The uterus was kneaded gently by an assistant to keep it firmly contracted. After the uterine wound had been sutured the pressure on the uterine arteries was dispensed with, as there was no further hemorrhage. The abdominal wound was closed with a continuous catgut suture for the peritoneum, and interrupted silkworm gut sutures for the muscular tissues and skin. The wound was dusted with iodoform, and the usual dressing of gauze and cotton applied. The vaginal tampon was then removed. The patient rallied quickly from the shock. One half hour after the operation the pulse was 90, full and strong. Eight hours later she urinated naturally. At 9 P. M. her temperature was 99, pulse 90. She was not allowed anything by the mouth, except washing the mouth with water, until evening, when she was given a little weak tea without sugar. March 18 patient slept well, suffered no pain, and there had not been any nausea or vomiting. The flow was normal, temperature 99, pulse 90. She was able to take a little milk. March 19, slept well last night. There was no pain in the wound, but she complained of a little griping from gas; pulse 84, temperature 99.2. March 20, she took milk at intervals today. She has no pain except from gas in the bowels. Temperature 99, pulse 84. March 21, removed the first dressing. Wound is dry, edges united. There is no sign of inflammation. Patient says she feels fine. The bowels moved a little from an enema. March 27, removed part of the sutures. There was a little pus about the stitch hole near the navel. The wound was washed with peroxide of hydrogen, and a new dressing applied. March 29, removed the balance of the sutures. The wound had united by first intention, except a small spot near the navel, which required a few days more to heal. The convalescence was uninterrupted. Patient suffered no pain or inconvenience except a slight uneasiness at times from gas in the bowels. She had no difficulty from the first in urinating. There was no nausea or vomiting after the operation. Her appetite was good all the time she was in bed. She was allowed to sit up on April 7, three weeks from the time of the operation, and left the hospital four days later. The baby was a male, and weighed six pounds.

In studying the literature on the subject, we find the indications for the operation to be any condition in which delivery through the vagina would be impossible or fraught with more danger to the mother than Cesarean section itself. Such conditions are pelvic deformities or obstruction of the pelvis from fibroid, bony, or cancerous tumors. In women dying near the end of pregnancy or during labor, the child, if still alive, may be delivered by a post-mortem Cesarean section. The mortality from the operation was given by Lusk, in 1899, at 50 per cent. In 1861 Pihon-Dufeilhay reported eighty-eight cases, with a mortality of 43 per cent. Mayer, in 1868, gathered 1,605 cases, in which the mortality was 46 per cent. In Mayer's statistics the mortality in America was placed at 67 per cent, while Dr. Harris found in a series of 134 cases operated upon in the United States that the mortality was 60 per cent. Kayser reports a mortality of 79 per cent in 67 hospital cases. Spaeth writes, in 1889, that there has not been a single successful case in the hospitals of Vienna during the present century. Bauden, writing in 1873, says, "In Paris there has not been a successful case in eighty years, although in the present century the operation has been performed in perhaps as many as fifty women." The mortality at the present time is much less than this. In looking for the cause of the high mortality in the past, we find that most of the unsuccessful cases were operated on in maternity hospitals where no aseptic or antiseptic precautions were used, or else the operation was performed as a last resort, when the membranes had ruptured, the uterine contractions had ceased, and the patient was exhausted by previous ineffectual attempts at delivery, the patients dying of shock, hemorrhage, or septic infection. To be successful the operation must not be tried as a last resort. It should be the first thing to be tried in cases where the operation is indicated. The best time to operate is during the early part of labor, while the uterine contractions are strong, but before the membranes are ruptured. The patient is then in good condition to stand the shock, as she has not become exhausted by long-continued suffering. Kelly says that in his cases he has operated at the end of pregnancy, without waiting for the pains to come on. In my case the operation was performed in a modern hospital, with all aseptic precautions. It was performed early, before the membranes had ruptured, and while the uterine contractions were strong. The uterus contracted immediately after the child was removed, and by kneading it was kept firmly contracted. This, together with compression of the uterine arteries by an assistant, controlled the hemorrhage perfectly. The patient not being exhausted before the operation, rallied quickly from the shock, and made an uninterrupted recovery. To this I attribute the success of the operation.

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HEROIN, THE NEWER SILVER SALTS, THE INTESTINAL ANTISEPTICS.

By GEORGE F. HANSON, M. D., Professor of Materia Medica and Therapeutics, Cooper Medical College.

Read before Medico-Chirurgical Society, May 6, 1901.

A book might easily be filled with the literature extant upon so formidable a list as that compiled under the combined headings of this paper. It will hardly be expected, therefore, that any one would attempt an extended discussion within the limits of a few minutes' reading. It is my intention to merely present a few notes from limited personal observation and various broader sources, which, it is hoped, may lead to an exchange of personal opinions and experience with the agents herein mentioned.

Heroin, the diacetic acid ester of morphin, or diacetyl morphin, is an artificial alkaloid derived from morphin $C_{19}H_{19}NO_3$ by the substitution of two atoms of acetyl for the two of hydroxyl (O H). This substitution substance, acetyl, belonging to the class of compounds derived from the union of individual radicles of the marsh-gas series with acids, and known as esters, produces in heroin a compound differing to some extent in its physiological action from the older salts of morphin. Naturally we might expect its action to most closely resemble that of the acetate of morphin, since the acid of original derivation is the same in both drugs. While resembling each other to a considerable degree in physical properties, such as color, taste, and freedom from odor, they differ in the important matter of solubility in water, making the use of heroin in liquid mixtures a matter for care in dispensing. Its solubility in weak acid dilutions denotes a resemblance more nearly to the average organic alkaloid than to the more commonly used acid combinations of the alkaloids, although, like them, a preparation such as the hydrochlorate is freely soluble both in water and alcohol. Introduced originally as a respiratory and bronchial sedative in coughs of a spasmodic, irritative nature, its use has extended somewhat to other fields of therapeutics, and in some sections may be said to have become quite the fad. Claims made for its superiority in physiological action over other preparations of morphin are two-fold, one that it acts less upon the cerebrum and more strongly upon respiration than the older salts of morphin; the other, that, while slowing the respiratory movements, it increases their depth, therefore not interfering with the proper oxygenation of the blood and tissues. Naturally enough it behaves like morphin in its tendency to check the secretions and lessen metabolism, producing constipation, and more or less depression in full and continued doses. In its small dosage of one twenty-fourth to one-twelfth grain, and especially in its favored combination with terpin hydrate, as an elixir, my personal experience with it has been favorable in selected cases of bronchitis and allied affections. In a case of chronic Bright's, for the insomnia, accompanied by considerable pain in the lower extremities, and unrelieved by hypnotics free from an opiate, tablets of one-twelfth grain of heroin, at four to six-hour intervals, gave considerable relief, and enabled the patient to get a fair amount of sleep. The urinary secretion was not perceptibly diminished, nor its color changed, although the amount of urea excreted was not ascertained, and the report is of no scientific value. The small dose of heroin required as a sedative to respiration is noteworthy, as the use of large doses has been attended with such unpleasant symptoms, as marked respiratory depression, as in the case of other derivatives of opium. Upon the whole, it is questionable as yet whether we have in heroin a remedy superior in any degree to codein, methyl morphin, or to dionin, ethyl morphin. Further reports are needed upon a drug of such acknowledged power, probably both for good and evil, and in the meantime a due amount of watchfulness is suggestive against inadvertently fixing the morphin habit upon one patient through the prescribing of a drug with an innocent-sounding name. Its analgisic power has been demonstrated in the usual run of painful affections,—neuralgia, functional and organic diseases of the stomach, attended by pain, dysmenorrhea, pneumonia, pulmonary tuberculosis, etc. A rather amusing use for heroin has been suggested by a German professor, who bravely proposes to treat the morphin habit with it. Such an inspiration might almost lead to the thought that the professor, instead of wearing a pair of glasses upon his nose, has been content with looking into one under it,—a habit too often productive of ophidian visions. As well might one attempt to treat belladonna poisoning by the administration of atropin.

Of the newer silver salts protargol has probably been most prominently before the profession and most liberally lauded by the literature of its promoters. Quite familiar as a yellowish powder, tasteless and odorless, it is readily soluble in water. It contains 8 per cent of silver, a little less than does argentamin, and very much less than the nitrates, but sufficient to class it among the efficient proteid silver compounds having strongly germicidal properties. Its favorite scene of action is on or in the urethral battlefield, where during the past three and one-half centuries have been fought so many bloody contests with the gonococci, those obstinate little scions of the aristocracy of Hades, which have done more to wreck the peace of humanity than any other thing except whisky. It is used with injections of one or two per cent protargol strength, and ordinarily produces but little discomfort. Reports would seem to indicate that about one week of treatment is required upon the average. The same precautions ought to be observed as in the injection of other powerful remedies, and as the same difficulties are encountered, there is necessarily a proportionate failure. When the festive gonococcus skips merrily into a lesion or a crypt in the mucous membrane, and draws a fold of his covering closely about him, he is prepared to laugh at the flood which sweeps over his hiding-place. Secure in his warm burrow, he cares not for the waves of protargol, argentamin, argonin, largin, itrol, actol, or any other solutions of the white metal. Without complete inflation of the urethra, and the more or less prolonged retention of the medicament *in situ*, it is reasonable to expect that the gonococcus will continue to thrive. Upon superficial, indolent ulcers and sluggishly-healing wounds the effects appear to be decidedly favorable.

The stimulation necessary to the promotion of a more vigorous granulation of surface can be regulated to a nicety with the newer silver compounds, without the heroic treatment so commonly associated with the mineral acid salts. The combination of an organ's proteid or vegetable acid with a silver base gives us a series of soluble compounds promising superior results. The soluble metallic silver brought forward by Crede is another of the many forms of silver advocated in recent years as antiseptics valuable in constitutional affections. Reports almost extravagant in their nature have appeared from time to time, detailing the therapeutic successes of the soluble metallic silver ointment in grave internal conditions. Without attempting to detract from the recognized value of this or any other of the newer articles of the modern materia medica, it remains for such recognized authorities as Cushing, of the University of Michigan, and others, to state the disprovement of earlier claims in their favor.

Of the silver compounds above mentioned, argentamin has been reported upon favorably in a number of instances. It is an eight or ten per cent solution of silver phosphate in dilute ethylendiamine (ten to fifteen per cent solution), and the advantage claimed for it is that its solutions penetrate better than those of silver nitrate. It occurs as a clear, water-white liquid, alkaline in reaction, irritant to mucous membranes, and turning yellow after a period of exposure. Its strength for injection in gonorrhea is approximately that of permanganate of potash or mercuric (bi) chlorid, 1:5000 up to 1:1000.

Argonin, a weaker antiseptic combination of casein and silver, of four and one-fourth per cent silver strength, has also received its share of favorable mention. It occurs as a white powder, soluble in hot water, and is used in the same strength as is protargol. Neither argonin nor argentamin are precipitated by albumin or by chlorids, giving them in this respect a decided advantage over silver nitrate.

The reports upon largin, a silver albuminate of 11 per cent silver strength, appear to be more limited in number, and occur principally in the literature of its manufacturers. It occurs as a freely-soluble gray powder, and is said to be non-irritating, as its composition would indicate. Used in one-fourth to one and one-half per cent solutions for its bactericidal properties in gonorrhea, and is also given internally as an intestinal antiseptic. It has been especially recommended in intestinal and gastric ulcer, and would seem to merit careful trial.

The citrate, itrol, being practically insoluble in water, is more limited in range of therapeutic usefulness, being utilized almost exclusively as a dry antiseptic for wounds, in powder form. As it is a fine, white powder, a one or two per cent ointment has been used as a lubricant antiseptic dressing, but I have been unable to find any extended reports upon the value of the agent. A saturated solution, which is about 1:4000 of distilled water, has also been advocated in gonorrhea.

Actol, silver lactate, while freely soluble in water (about 1 in 20) has the same property of coagulating albumin as has the nitrate. Given per orem it disinfects the intestinal contents and induces constipation through its astringency. It occurs as an opaque, white powder, and has been used in solution as a gargle in laryngitis and pharyngitis. Injection strength for specific urethritis is about the same as in the case of the citrate itrol.

When we come to the consideration of intestinal antiseptics and disinfectants, we find the supply of agents exceeded only by the number of remedies employed at various times in pertussis. Of late years we naturally find the members of the aromatic series heading the list. In the prevention of putrefaction of intestinal contents, some of them have proved highly efficacious for the destruction of germs, such as the typhoid and others whose habitat is the bowel wall. We are still searching for a never-failing germicide which can be used with safety. The failure to destroy the ultimate bacillus of a thriving colony gives opportunity for a renewal of vigorous growth. The diminution in the number of microbes appearing in the feces, and of the double sulphates in the urine, measures the value of an intestinal disinfectant. Such an agent must, as a matter of safety to the individual, not be too poisonous nor too irritant to an inflamed mucous membrane. Its solubility must not be too great, lest the stomach walls absorb it before it can reach the portion of the alimentary canal where its services are required. Salicylic and carbolic acids, creosote, and the sulphocarbolates, it will be noted, do not meet the indications. Most of them are too irritant, too poisonous, and too readily absorbed by the stomach for medicinal dosage to accomplish thorough work. Creolin, lysol, and the cresols generally are open to the same objections, although less poisonous than carbolic acid itself. Naphthol, naphthalin, salol, and some of the bismuth salts fulfil the requirements of insolubility in the gastric juices. The latter two are non-irritant and practically non-poisonous. Cases of typhoid have been treated with the sulpho-carbolates alone and recovered. Others with bismuth subgallate alone, with the same result. But other cases have recovered with no antiseptic treatment. Benzoic acid and the benzoates are mostly soluble and irritant. Guaiacol carbonate is insoluble, and practically non-irritant. I regret that lack of time prevents me from going over the list at length. A rapid glance over the limited number mentioned leads one to select either salol, bismuth, or guaiacol carbonate. A suspension of bismuth subgallate and guaiacol carbonate in emulsion of salol might reasonably be expected to fairly meet the indications. Such a combination is non-irritant, nearly tasteless, and practically non-toxic. Personally I have found it of pronounced value.

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THE TREATMENT OF IMMATURE CATARACT, WITH REPORT OF TWO CASES.

By ALBERT B. MCKEE, M. D., San Francisco.

Read before the Medical Society of the State of California April 16-18, 1901.

The treatment of immature cataract, whilst an ancient and much-discussed one, is always full of interest to those who have such cases to deal with, and is one well worthy of discussion.

Nothing is more trying to patient and surgeon than a cataract which, as time passes, shows no signs of maturing. Although the measures designed for maturing cataracts are seemingly of little gravity, the results are often disappointing, if not directly injurious. It would seem that there are cataracts which, by contrast, might almost be called normal cataracts, because of the regularity of the course which they pursue, and by reason of the success attending their removal. Many of the slower forms are doubtless the expression of a degeneration which is premature, or are the result of a temporary disturbance of nutrition, or the sequel of an inflammatory condition. The ordinary operation for cataract carries with it a certain risk, but the maturation of a cataract and the subsequent removal, exposes the eye to a double insult. The failure of one of these preliminary operations renders another risk necessary, and its success may result in a so stormy reaction that the eye may be lost. The unknown influence which resulted in the formation of a partial opacity may have left the eye in a peculiarly vulnerable condition. Although the marks of a gross lesion may be lacking, we can not be sure that a predisposition to inflammatory changes does not exist. It is doubtless true that cataract is, in all cases, to be looked upon as a disease, and not as one of the normal accompaniments of advanced age; however, it seems that a delay or halt in its formation is to be looked upon as indicating the temporary nature of the exciting cause, and hence may indicate a condition which leaves the eye in a less favorable condition than when no pathological process is discoverable, in spite of which the cataract goes on to maturity.

We often meet with opacities which are congenital, or which occur at a very early period of existence, do not produce any impairment of vision, and do not progress; it is not, however, of this class of cataracts of which we are to speak.

In a recent article Weeks (1) discusses the character of the various lenticular opacities and says that the non-progressive cortical opacities are rare, and that anterior and posterior polar cataracts are almost always stationary. Zonular cataract almost always becomes denser as the individual advances in years, and in not a few cases, general opacification of the entire cortex follows. Cataracts appearing in the course of irido-cyclitis he does not regard as, strictly speaking, inflammatory, but rather as the result of impaired nutrition. He says that drugs have no value in opacities of the lens save as they tend to remove inflammation or some constitutional vice, which may have been the cause of the opacification, but are useless so far as the removal of an already formed opacity is concerned. He finds no grounds for the belief that opacities can be removed by massage, and states that he has been called upon many times to operate upon cases which had submitted to a long course of massage. He considers that massage may be of some value in promoting the nutrition of the eye, and hence may exercise an influence upon the course of the cataract. He states further that the well-known fact that opacification may advance to a certain stage and then become stationary, makes all reports as to the removal of cataracts by other than operative methods, misleading. He believes that the fitting of proper lenses, the use of mydriatics, miotics, and other makeshifts, may be of some transient value, but when these fail, operation is the only resort. He has abandoned the various methods of ripening immature cataracts as offering too little benefit in proportion to their dangers. Risley (2), in discussing the subject, refers to a former paper of his, in which he tabulates eighty cases of immature cataract, and remarks that he there took the ground that, as the majority of elderly people do not present opacities of the lens, opacification is to be looked upon as the expression of a diseased condition, and that the uveal tract is the most frequent site of the lesion. Upon inquiry, he has found that the majority of such patients have suffered from headaches, chronic conjunctivitis of the congestive type, or other eye troubles. He finds the lower and inner quadrant of the lens to be the most common site of partial opacities, and remarks that it is directly in this line that the choroid is most exposed to light. He finds this portion of the lens and choroid notably affected in stokers, and attributes this fact to their exposure to light and heat. He tried ripening procedures in a series of cases of immature cataract, and whilst, in some, the ripening of the cataract seemed to be hastened, upon operating the posterior cortex was found to be clear. A further difficulty which presented itself in these cases was that the lens was more firmly adherent than usual to the capsule. He agrees with Weeks that it is better to proceed at once to extract rather than to attempt any of the ripening procedures. Fuchs (3) speaks of the coincidence of the appearance of cataract with advanced age, but remarks that it is not to be considered a physiological process, as, for example, the turning gray of the hair. De Schweinitz (4) says of nuclear opacities that they are inflammatory in character, or due to a degenerative process. He believes that uncorrected presbyopia has much to do with the formation of cataract, and that a check may be placed upon its advancement by proper glasses. He, likewise, is opposed to all ripening procedures. The summary of his conclusions in regard to immature cataract is so valuable that I reproduce it verbatim:—

"1. Certain lenticular opacities, most often situated in the naso-inferior quadrant of the lens, occasionally are practically stationary, and may be designated 'non-progressive.' They do not handicap the patient's ocular abilities, and may, with propriety, be separated from the class to which the name incipient cataract is ordinarily given. 2. Certain lenticular opacities undoubtedly depend, as Risley and others have shown, on what may be designated 'disturbances of the choroid,' as apart from active and actual choroiditis, and their progress is sometimes apparently checked by measures—optical, local, and general medicinal—which restore the choroid coat to normality. Such measures do not, however, remove from the lens the opacities which have already formed when the patient comes under treatment. 3. Certain lenticular opacities which appear in association with diabetes mellitus, nephritis, lithemia, and arteriosclerosis, particularly the last two diseases, are sometimes apparently retarded, like those in No. 2, by measures which are suited to the patient's general condition, in connection with local and optical therapeutics; but these measures never dissipate the lens-lesion already present. 4. Certain lenticular opacities produce not only prodromal myopia, but very high degree of astigmatism, the correction of which may result temporarily in a surprising improvement in visual acuity. 5. Certain lenticular opacities cause an obscuration of vision that may be largely dissipated temporarily by providing the patient with glasses moderately tinted, which give the best visual acuity during mydriasis, and maintaining this mydriasis with a mild mydriatic. Sometimes, under these circumstances, the mydriasis seems to hasten maturation. This fact should be explained to the patient. 6. Certain lenticular opacities, especially in the form of striæ of refraction, cause an obscuration of vision, which is relieved somewhat by maintaining a mild myosis with weak solutions of one of the myotics. 7. If the vision of eyes suffering from incipient cataract of the nuclear type is improved by mydriasis, this is not a sufficient indication for optical iridectomy, unless the patient finds by observation that the increased visual acuity, as noted by test-type examination, is also advantageous in pursuing his ordinary occupation. 8. The extraction of unripe cataracts is preferable to any of the ordinary operations for ripening cataracts. 9. There is no evidence that electricity has the slightest influence in checking the rate of progress of incipient cataract, or in dissipating the opacities which have formed. 10. If there is any evidence that massage of the eyeball favorably modifies the rate of development of cataract, it is still very insufficient. There is some evidence to show that massage sometimes hastens the opacification of the lens. The subject demands further investigation. 11. There are no specific remedies for the treatment of cataract, and there is no reliable evidence that drugs exist which cause the absorption of partially or fully formed cataracts. 12. All lenticular opacities, unless perhaps those which be-long to the so-called non-progressive group, should be regadred as indications for a thorough investigation of the patient from the general as well as the ocular standpoint, and for an employment of remedial agents—optical, local, medicinal—according to the findings."

Barck (5) concurs with the preceding authorities in recommending extraction without waiting until the lens is wholly opaque. He is persuaded that the old method of waiting until the cataract is ripe, entails needless suffering upon the patient. Cross, of Bristol, England, believes in operating whenever the patient no longer has useful vision, and that if the operation be followed by a discission, that the result compares favorably with the operation of fully-mature cataracts. Widmark (6) says that extraction should take precedence over all other methods in elderly individuals, and quotes Hirschberg as saying that one should operate upon all patients over fifty years of age whenever the sight becomes noticeably impaired. Widmark follows the indications as given by Schweigger: 1. Patients under twenty years, discission and eventual extraction. 2. Between twenty and forty years, discission for maturing cataracts and then extraction. 3. Forty to sixty years, cortextritur, and later extraction. 4. Sixty years, extraction. Norris (7), following Foerster's suggestion of ripening cataracts by massage, says: "Large numbers of cataracts have been treated in this way, some with and some without iridectomy. Opinions vary much as to its value. In the hands of the author, slight friction on the capsule after opening the anterior chamber, not sufficient to cause any reaction on the part of the iris, has been most uncertain in its results, rarely producing maturation of the cataract. McHardy reports that in nine per cent of his cases of unripe cataract iridectomy and gentle massage failed to ripen the cataract to the desired point, and that when rougher massage was employed, he had seventeen per cent of violent iritis. Gentle friction of the capsule itself has been much more effective, but is open to the objection of having to introduce an additional instrument into the eye, and to the liability of rupture of the zonula in restless patients. Ripening of senile cataract, according to the plan of Muter, by incision into the anterior capsule, has been rejected by most eye surgeons on account of the danger of too great swelling of the lens, with consequent inflammatory reaction."

Pyle (8), in the *Philadelphia Medical Journal,* in a review of the subject, "The Disappearance of Senile Cataracts," refers to the treatment of immature cataracts, and says: "Drugs have proven absolutely valueless. As long ago as 1862, Sperino, of Turin, published an account of forty-five cases of incipient cataract operated upon by repeated paracentesis, in which he claimed that the results were very promising, in some cases perfect vision being restored. In 1865 the celebrated Sir David Brewster contributed a paper to the Royal Society of Edinburg upon the cause and cure of cataract, in which he described how he cured himself of incipient cataract. Hogg, who became interested in the subject, wrote for a further explanation. In his reply, Brewster said that he believed incipient cataract to be due to impoverishment of the albuminous liquor Morgani between the fibers of the lens, causing desiccation. He thought that the necessary supply of fluid to the lens was derived from the aqueous, and that when there was too little water and too much albumin in that humor, opacity commenced. He further reasoned that therefore incipient cataract might be cured. 1. By evacuating the aqueous by repeated paracen-

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tesis, in the hope that the fresh secretion might contain a less proportion of albumen, and so counteract the desiccation of the lens. 2. By injecting distilled water or a fluid equivalent to healthy aqueous into the anterior chamber after paracentesis, to take the place of the fluid discharged, and lower the specific gravity of the aqueous humor. In cases of soft cataract he thought that if simple evacuation did not succeed, a fluid more albuminous than the aqueous might be injected. Although Hogg carefully followed Brewster's experiments, his results were practically negative. In 1891 Kalish, after discarding all drugs, evolved a form of treatment of uncomplicated immature cataract, including strict bodily and ocular hygiene, careful and repeated refraction, a special form of manipulation, and the instillation of a mixture of equal parts of glycerin and one per cent boric acid in rose-water, for which he claimed good results in several cases. In a paper read in January, 1899, despite the lack of support and the unfavorable criticism for nine years, he still maintained the beneficent results of his method, and claimed sixty-nine successful results in one hundred and eighteen eyes, with even a higher percentage in his very recent cases. There is little doubt that, with the maintenance of good health, careful and repeated refraction, and the proper use of the eyes, the chances of cataract maturing are greatly lessened, but beyond this any reliable method of treating incipient cataract has yet to be demonstrated, notwithstanding the clinical evidence as to its possibility."

Wolfberg (9), in the *Wochenschrift fur Hygiene and Therapie des Auges*, Vol. 4, No. 16, says that in cases of unripe cataract, not only for the purpose of ripening them artificially, but also because he has gained the impression that the once operated eye is more safe against infection by reason of the rapid appearance of hyperemia and vascularization, he makes a preliminary iridectomy. Contrary to those who consider that the eye is thus twice exposed to danger, he says that it is a well-known fact that the danger of infection in operations on the iris is very slight.

The author's personal experience is confined to two operations for ripening immature cataract. They are as follows:—

R. D., aet. sixty years, was under observation for several years on account of immature cataracts. About a year before the later-described methods were undertaken, another oculist had made a large iridectomy, doubtless for the purpose of furthering the maturation of the cataracts. The coloboma extended well toward the periphery, was clean and well made. The vision in each eye was reduced to counting fingers in five meters, and the patient was no longer able to make a living, hence it was imperative that something be done. May 29, 1899, a small incision was made in the cornea, and the capsule of the lens lightly rubbed with a probe. It seemed that this method would be likely to have little effect, hence a minute opening was made in the capsule. On the following day the lens already showed signs of opacification. One day later there was a light pericorneal injection. Two days afterward, the patient having considerable pain in the eye, and the tension being slightly increased, an incision was made, as for the usual extraction, and a moderate-sized nucleus with considerable cortical substance removed. The operation was made with great ease, and it was hoped that the inflammatory signs, apparently the result of increased tension, would subside. However, after a few days the pain, which had diminished somewhat immediately after the operation, increased, the chamber, which had quickly refilled after the operation, became shallow, and the pupillary area was filled with opaque lens matter. Tension was below normal, and there was probably a fistulous opening present. There was deep injection, and a dull, aching pain. These symptoms gradually declined, although the tension long remained subnormal, and it seemed that atrophy had set in. Three weeks later the eye again became injected, but eventually the irritation subsided, and the tension returned to the normal. Four months after the operation the patient was able to count fingers in about three feet. There was a small coloboma upward, partially concealed by an opacity of the posterior surface of the cornea. Some months later, a iridectomy was made by another oculist, but it disclosed opaque tissue behind the iris.

The other case is that of A. B., aged about forty-five years. The history is as follows: Patient consulted me first in November, 1898, complaining of failing sight. He stated that the sight had been failing many years, at that time being only 15-200. The examination showed opacity of the nucleus of each lens, and slight opacification of the equatorial region. There were a few floating threads in the vitreous, and the refraction was very irregular. During the next few months it was found necessary to open several suppurating Meibomian cysts. This is interesting in view of Risley's statement regarding the etiology of cataract. In June, 1900, the patient was struck lightly on the right eye by a small rock, and had an attack of iritis, with the formation of some synechia. It seemed almost that the exciting cause was too trivial to account for the iritis. The attack caused very little pain, and soon passed off, leaving only the synechia to mark its course. The vision was not influenced by this attack, and in December the patient was able to count fingers in five meters. There was little change noticeable in the opacity of the lens. About this time the patient consulted one of our specialists of national reputation, who advised trituration of the lens capsule after opening the anterior chamber. This measure was carried out, but, with a view of facilitating the subsequent extraction, a small iridectomy was made. Within a few days there was considerable injection, the iris was muddy in color, and there was some chemosis, the eye being, however, almost free from pain, as in the case of the eye previously injured. Up to the present time, aside from a slight opacification of the anterior cortex, the cataract has not materially ripened. In view of the two attacks of iritis after such slight traumata, there would seem to be a peculiarly vulnerable condition of the eye, which augurs badly for the extraction. It is to be feared that if any considerable amount of cortical material remain in the eye, irido-cyclitis and atrophy of the eyeball will follow.

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AURAL GYMNASTICS.

By M. W. Frederick, A. B., M. D.

With the title "Aural, or Acoustic Gymnastics" I refer especially to the method described at length and brought into public notice some eight years ago by Urbantschitsch, of Vienna. As in many other instances, his idea was not an entirely new one. Older otologists—Itard, Beck, Wolff, Toynbee, and others—had made sporadic attempts in the same direction. It was Urbantschitsch, however, who, with great enthusiasm and perseverance, sought systematically and methodically to place the sound treatment of the deaf on a permanent and scientific basis.

I was an auditor in Urbantschitsch's polyclinic in 1893, when he brought out his first leaflet, and made his first demonstrations of the method, and was much impressed by the possibilities which this method suggested. Owing to the peculiar conditions existing in Vienna, Urbantschitsch's method met with great opposition, and even ridicule, from the outset, which, no doubt, prevented a thorough trial of the method by otologists and deaf and dumb instructors. The method is tiresome for the patient and the instructor, and is very long drawn out in most cases, so that a great demand is made on the patience and faith of all concerned. This will explain why in most cases the trials were made in a half-hearted way only, and generally relinquished in a short time. It is a fact not generally appreciated that the deaf are more dissatisfied, and more sensitive in regard to their infirmity, than the blind, or, as a gentleman who occupies himself constantly with both classes, expresses it, "The blind are less unhappy in proportion to their physical infirmities than the deaf." This accounts for the opposition found in many deaf persons to any experiment directed towards an improvement of their hearing. A great many have, after years of despair, become accustomed to their condition, and resent any measure which again makes them vividly conscious of their deplorable defect. Others, who take to the method willingly, and become enthusiastic over the first signs of improvement noticed, become correspondingly despondent when they notice how slowly the hearing power increases, or, as often happens, when a sudden loss of the improvement noted takes place.

Urbantschitsch did not allow himself to become discouraged by the opposition and reported lack of results by others, but has kept on improving and extending his method, with the consequence that others are again testing it, with favorable results. The method is, however, still so little known and so very little used that I feel justified in occupying a few minutes of your valuable time in reminding you of it. When I called on the superintendent of our state institution for the deaf and dumb to ask whether he had ever used the method, I found that he had never heard of it. Dench, in his latest edition, does not mention the method at all. I have found only isolated references to it in the American special journals. In the report of the Nebraska Institute for the Deaf and Dumb, for the years 1895 and 1896, I find the following passage: "If there is a vestige of hearing, we endeavor to improve and develop it. We find that a large proportion of the pupils sent here as deaf have a latent or dormant sense of hearing. By a systematic training this power is aroused and made active, and we have satisfactory results from this line of work. We find that improvement in hearing ability aids greatly in oral work. This feature of instructing the deaf originated in our own school, and with its present superintendent."

I shall not attempt to describe to you the method at any length, but refer you to Urbantschitsch's book for a detailed description. Briefly, the method consists in, (1) awakening attention to acoustic impressions; (2) in building up differential hearing; (3) in increasing acoustic excitability. Needless to say that when there is complete, or almost complete, atrophy of the acoustic nerve, or great permanent impediments to the passage of the sound waves through the different parts of the sound-conducting apparatus, we can do no more for the restoration of hearing than we can for the restoration of vision in a case of optic atrophy or dense total leucoma. The first thing to do, therefore, is to ascertain whether there is any hearing power present. It is of interest in this direction to note that Politzer states that amongst deaf-mutes in over 60 per cent the anatomical lesions are such as to preclude any and all hearing, basing his assertion on a number of post-mortem examinations of deaf-mutes. Bezold, on the other hand, finds that 80 per cent of deaf-mutes have some remnant of hearing in one ear at least, and Urbantschitsch claims that only about 3 per cent of deaf-mutes are wholly deaf. Here is where the first point spoken of comes into play. Many of these children do not seek to make any use of their acoustic impressions; the impressions remain, as Bonnier says, like undeveloped photographic negatives in their brain. In these children the ear is in the same condition functionally as an amblyopic eye, and it often takes long and persistent efforts to determine that there is some hearing power present. Vonsen tells us that in Gerlachshein it sometimes takes three months to obtain the first signs of auditory perception. Whistles, bells, and especially the long notes of an organ, are the best means of awakening acoustic excitability in the stubborn cases. At first these acoustic impressions are rather painful and bewildering, and this often deters the little patients from making any further voluntary efforts. Soon the sound is perceived as such, that is to say, that the auditory center is asuming its specific function, and that the possibility of exercising and developing this function is given. The next thing, then, is to build up differential hearing, which again requires great patience and discrimination. In doing this, Urbantschitsch is opposed to the use of the speaking tube, so much in vogue amongst the teachers of the deaf-mutes, as he claims that the tube modifies the voice to such an extent that the pupil has a bad copy set before him, as it were. From the simple vowels and consonants spoken in a moderately loud voice, and using at the most the hands to direct the sound against the ear, he proceeds to short words and short sentences, and, in the best cases, to ordinary conversation. By means of these exercises the acoustic excitability is also increased, so that the hearing distance gradually grows. At the same time there is another faculty undergoing training, and that is the acoustic memory. Many of the pupils when they perceive a sound or word for the second or third time, do not recognize its meaning. A very good comparison of these people is that with a person about to learn a foreign language. At first no attention is paid to the sounds of the unknown tongue; then the sounds are perceived, but not understood. Gradually the power of analyzing, or understanding what is said in the foreign tongue, is acquired, and the memory has to be trained to remember the sounds and groups of sounds when they are again heard, until the whole thing goes on without any conscious effort.

The results gained by Urbantschitsch and others, notably Lehfeld, of Doebling, are surprising and gratifying. Not the least is the discovery in numerous cases of a psychic deafness, in which hearing was rapidly acquired, although these children were looked upon as hopeless. This does not come, strictly speaking, within the scope of this method, but is adduced to show with what indifference these unfortunates have often been treated.

In a training of this kind the intelligence and personal disposition of the pupil plays a large part. It would be waste of time to try the method on an imbecile child or on one thoroughly averse to any personal effort. The rule, however, is that the pupils are very anxious and persevering, so that we may generally rest assured that the efforts of the teacher will be rewarded. The method is not confined to young deaf-mutes, but is also available in cases of acquired deafness, when the anatomical lesions are not of such a nature as to preclude an improvement. This is especially true of deafness resulting from meningitis cerebro-spinalis, scarlatina, typhoid, shock, and fright, in which some remarkable results were gained. I have lately had under my care a young woman, aged 23, who has been deaf since her twelfth year, as a result of typhoid. She had learned to rely exclusively on lip-reading, at which she was not very adept, however. She had been treated by a number of men in a number of different ways, and had pronounced her own case hopeless. She did not come to me for her hearing, but on account of her eyes, and it was at my suggestion, and in the face of the unwillingness of the patient, that we tried the aural gymnastics, with the result that in a few weeks she could hear my voice quite well at a distance of six inches, and understand most everything I said. I look for still further improvement in the differentiation and the hearing distance, especially if I can succeed in arousing a little more enthusiasm for the method in the patient. I am convinced that there are a number of such cases occurring in our midst, and that much could be done for these unfortunates if they were not sent away as incurable after a trial of the ordinary methods. After a long-continued otitis media there often remains a diminished hearing, for which, as a rule, nothing is done beyond the use of the Politzer inflation occasionally. In many of these cases I am convinced that, through the long impairment of function, there has resulted a torpor of the acoustic nerve, which could be done away with by proper acoustic exercises. I have no doubt that many of you have had cases in which the perception of watch and tuning forks was fairly good, and yet the parents complained that the child did not hear well when spoken to; that its attention had first to be secured before it could understand what was said. In such cases I am sure that a systematic training with aural exercises would soon restore fair hearing power.

Another important feature of the benefits to be gained from this method is the improvement in the patient's voice. The monatones, scanning enunciation of the deaf who have been taught to speak, or who have lost their hearing at an early age, is rather repulsive to most people; and the peculiar way these deaf people have of pronouncing makes their speech difficult of comprehension to those who are unaccustomed to hearing them. If these people can be brought to hear their own voice, these peculiarities soon disappear. I know that I have pronounced may cases beyond help that could have derived benefit from this method, and I think that many of you have done the same. I intend, however, to watch for suitable cases, and hope that you will do the same, so that a future comparison of notes may redound to the credit of the method and ourselves.

HOSPITAL REPORTS.

Gynecological Clinic, Cooper Medical College, Geo. B. Somers, M. D., in charge.

Reported by Minora E. Kibbe, M. D.

CHRONIC TUBERCULOUS PELVIC PERITONITIS.

Clinic Case 2944. Mrs. B., American, of French-Swiss parentage. Age 19. Father died of morphinism; mother, of inflammation of bowels, a month after childbirth; two sisters and three brothers are well. No history given of tuberculosis in family. Patient has been remarkably healthy. Chickenpox is the only disease she has had. Married at fifteen; baby born within a year, dying two months since; has had one miscarriage at six weeks, said to be due to rapid running. Present illness began six months ago, when patient had measles. During the fever she took cold. Ever since has had slight fever with cough, and her abdomen has constantly increased in size. Breasts are a little tender. Catamenia appear regularly. Leucorrhea profuse. Has some burning pain on urinating, and pain on defecation. Has not been sick to stomach. Has hot flashes and faint feeling. Has no appetite, and sleeps poorly. Has great pain on pressure upon the abdomen and right lumbar region. Bimanual examination showed the uterus of normal size, pressed forward against the bladder, and a tumor filling the pelvis and rising as far as the umbilicus. On percussion the mass gave the physical signs of a cyst. Operation April 20, 1901. On opening the abdomen the peritoneum appeared thickened and degenerated. A tumor presented, which was punctured with a trocar. The walls were thick, but extremely friable. In getting out the thin, chocolate-colored fluid, the mass was extensively lacerated, as no instrument would hold in it. The peritoneum was in many places 2 cm. thick, and covered with soft, reddish tissue, studded with tubercles. The omentum was firmly adherent to the abdominal wall, and fully 2½ cm. thick in places. A cross section showed a central layer of fat, and above and below a well-marked layer of granulation tissue, in which many tubercles were seen. The adnexa were involved in the tuberculous adhesions. They were removed with some difficulty, with as much of the peritoneum as could safely be taken. The uterus being fixed with thick adhesions, and the condition of the patient being critical, it was thought best not to remove it. The wound was sewed up in layers, a gauze drain being left in the lower angle of the wound. Report of Prof. Wm. Ophuls, pathologist. The peritoneum of pelvic organs is very much thickened, and shows numerous submiliary nodules and fibrous tissue, in which there are many typical tubercles with large giant cells. A few of them show central caseation. June 15. The wound is healed with a sinus remaining at the site of the drain. Temperature and pulse are normal. Bimanual examination shows some hard masses in Douglas pouch, and also on the left side of the uterus. These masses seem to be diminishing in size, and patient says she feels well. Her recovery from the extensive operation in her critical condition shows the recuperative powers of tuberculous patients.

EFFECT OF FORMALIN TAMPONS.

Clinic Case 2960. Age 26. Housemaid; single. One child. Consulted in reference to possible pregnancy.. Said that she had been assaulted three days previously. Physical examination showed retroversion and prolapse of the uterus, dilation of the cervical canal, the os presenting a wire edge, pulsation of the vaginal arteries and a profuse leucorrheal discharge. Coverslips sent to pathological laboratory showed gonococci. Diagnosis, gonorrhea. Treatment: The uterus was replaced by manipulation. A mild solution of nitrate of silver was applied to cervical canal and vaginal walls. The vagina was then packed with strips of sterile gauze soaked in a one per cent solution of formalin. She was told to remove the gauze the next morning and take a hot vaginal douche. On the second day she appeared at the clinic again, and it was discovered that she had not removed the gauze. On taking out the packing, the entrance to the vagina presented numerous excoriations. Examination with the speculum showed a number of spots in the vaginal walls, varying in size from a dime to half a dollar, covered with a layer of necrosed tissue. On palpation the vaginal walls felt hard and board like. The necrosed tissue gradually sloughed away, not, however, involving the tissues deeply. Subsequent repeated examinations of the discharges from cervix and vaginal walls showed no evidence of gonococci. The gonococci were discovered May 13. The formalin was used May 15. Gonococci absent May 27, and have not been present since. The local physiological effect of formalin is to produce hardness of the tissues, thus drying up secretions. It is an excellent remedy in cases of vaginal leucorrhea, but must be used in very mild solutions. As a douche one-half of one per cent is strong enough.

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THE DIVISION OF THE FEE.

The question of a division of the fee for operations by the surgeon with the practitioner has received during the last year a great and varied amount of discussion. Its many phases have been thoroughly gone over; opinions have been discordant, and it is as far from settlement as before this upheaval of injustice to the practitioner and of the unethical conduct of the surgeon was ever considered. The question is one of interest to the patient and physician; it concerns the welfare of the profession and its ethical standing; it shows how deeply rooted is the spirit of commercialism; it threatens to level an honorable calling to the plane of a trade; it bodes no good.

In the days when surgical operations were fewer, the difference in compensation was not brought so vividly before the practitioner. The frequency and the exalted plane which this branch of medicine has reached, with the large fees, and a seeming greater glory for the surgeon, has filled the hearts of physicians with envy. It and the spirit of the day have made prominent the commercial equation, and brought to light practises that are far from creditable to either party.

It has been common knowledge that certain physicians and surgeons of our state are not free from taint. There has been a firm conviction that many have sinned most flagrantly, but only lately has any one been bold enough to come openly before the public with bids for patronage by offering a liberal commission. It has been public property that certain physicians have cappers, steerers, nurses, and what not, laboring early and late in every city and town in this and other states to increase their glory and their income. These men are not few but many. The commissions offered have varied in amount and character. Only recently a physician or surgeon of this city asked a lady, an entire stranger to him, what commission a certain physician was allowing her for the cases she sent him, and in the same breath stated that he would give more. He said that he usually gave 5 per cent on $50 cases, 15 per cent on cases over $50, etc. He also informed her that several very influential, ethical (?) men were doing the same thing. Possibly the boldest effort to secure patronage on these lines was made public by a local hospital. The circular given out is interesting.

> "We sent you an announcement of our opening nearly two years ago; since then we have had remarkable success. All modern improvements have been added, making this one of the best equipped hospitals on the coast.
>
> "We average as many nurses as patients, so give the best of attention; and the patients have advertised us, hence our rapid growth.
>
> "We have never had a physician send his cases here and then change to another hospital, so we feel sure that if you send us one case you will send more.
>
> "This hospital is conducted by the directors for the benefit of all alike, not by doctors for their own benefit.
>
> "Hospital is open to all reputable physicians; any case you send or bring to us is your case. You may, or we can, as you direct, select competent specialists to assist you, whether you can pay much, little, or nothing for the help. You can not lose your case or your just proportion of the professional fee, if we select the surgeon or physician.
>
> "This is a benevolent corporation, we own our property, have no debt or shares; so we have no rent, interest, or dividends to pay, and hospital is self-supporting. No institution can give better service for money paid."

This document proclaims that this institution has met with "remarkable success;" but if this were true, the document certainly has no reason for existence. We also have good cause for doubting its success, because "they average as many nurses as patients," and we are well aware of the fact that some of its patients have advertised the institution—a little to the management's chagrin. We do not know whether any physician who ever sent a case there ever changed to another hospital; but we do know that the authorities of this institution did forward one patient at least to another hospital.

The next paragraph is full of charity and consideration, and teems with a spirit of Christianity. It assures all that "your case" is yours—until stolen. It deprecates your own ability to manage your own case, by offering to select "competent specialists" at any rate, much or nothing, and finally assures you that "you can not lose your case or your just proportion of the professional fee." This, coming from a "Christian, benevolent corporation," owning its property, which is free from debt, having "no rent or shares to pay," and is "self-supporting," renders this plea for further patronage ludicrous and degrading. If it were not to show to what extremes men and institutions will go to further their ambitions, we would deem the whole thing beyond contempt. It is remarkable to us how certain reputable men can allow their names to remain on the roster of so Christian an institution.

It is useless to attempt a detailed account of so intricate a problem, or to enumerate the disasters that await the profession of medicine from this spirit of commercialism. Men should remember that they are, in the care of the sick and decrepit, not dealing with parcels or pieces of material things, but with the bodies of living human beings, gifted with a soul, a mind, capable of appreciating a good deed and humane treatment. They should consider that it is a greater theft to steal by overcharging and dividing a fee clandestinely than by highway robbery. They should recall the words of the Saviour, "Whatsoever ye would that men should do to you, do ye even so to them." How few of us would permit any such transactions in our own affairs! How few would allow, without most strenuous objection, the percentage so commonly demanded on prescriptions! It is quite another matter when your own pocket is picked; then take heed.

One result of these discussions discloses the unanimity of opinion that the general practitioner is at quite a disadvantage from a financial point of view, that he is poorly paid, and that some financial consideration should be shown him on this account. This may be true; but money is not supposed to recompense a man for his skill, knowledge, and anxiety in the care of the sick. It may be fogyism and old fashioned to assert that no pay is adequate for the work of the true physician. The gratitude, confidence, love, honor, and esteem of the patient is always far more than money; except as a means of livelihood, money can never adequately repay one. The financial consideration, taken in its broadest, most liberal, and highest interpretation, never completely rounds out the compliment of having done a good deed, relieved human suffering, without the added confidence and gratitude of the receiver. This is true not only of medicine, but all the acknowledged professions. Is the sculptor ever rewarded financially for the truth, beauty, and almost life, with which he vivifies his statue? Is the artist, who pours his soul into the image he leaves upon the canvas, paid in dollars for his work? Is the lawyer paid for his logic and eloquence by financial remuneration? Then why degrade the noblest of all professions? Do you not bring hope and health to the sick, relief to the sufferer, comfort and peace to the dying? Is it the pill that inspires, that brightens? Is it not your soul, your heart, through your cheering word and kind ministrations, that imparts to the afflicted that same impression that is instilled into the marble and canvas, though of a higher and nobler character? For the present, at least, then, let the general practitioner go on his way, better in the old way than in the new, and await his time for fuller remuneration.

As for the remedy, there is none at hand. As long as human nature and human motives remain as they are, so long will the fees of the physician remain a matter of question as to value. No general law can be formulated that will absolutely control professional men actuated by motives so variable. The enforcement of some regulations will aid to keep up a certain standard of remuneration, but it is out of the question to force into practise a uniform fee, as is done by various organizations and labor unions. In one instance mechanical problems are dealt with for so many hours a day, whose products are sold for a fixed price; the physician is not dealing with products that command a certain sum or require just so many hours a day; he is sworn to be ready on all occasions, and indefinitely to minister to the sick and the dying; his labor is concerned with life and death; his work is optional, and the "fee bill" allows him a latitude for full appreciation of his services, and saves him from being forced into the rank and file, it financial remuneration is the measure of his services to mankind.

Our most highly esteemed contemporary, the *Cleveland Journal of Medicine,* has studied this subject very carefully, and, while it fully appreciates the motives that fill the breast of the true physician, has advocated a scheme of reforming the older "fee bills," and of establishing a uniform price for cases, instead of a rate per visit. We have one answer to this. The fee for obstetrical cases has been uniform among physicians for many years, and yet while many physicians charge twice or several times the ordinary fee, others attend for one-half or one-third, and we have no redress. The people, too, make all kinds of demands for a reduction, and too often secure it. There is no adequate remuneration, in even the most normal obstetric case, at $25, and how much more would this be true of an average typhoid fever case at $150? And so it would be with a prescribed rate for other diseases. Such an arrangement would imply a contract, and to a degree all the evils of lodge practise and contract labor would be visited upon us, with even greater force. The position of the lawyer in this respect is quoted as an example; but does he follow his fee bill?—By no means; that very same personal factor enters into all his charges, and the recompense is measured by his attainments, position, and the interests involved. The suggestion that a percentage or certain amount should be made a stipulation in surgical cases is proper and right, but it should be understood previously by patient and physician. That a revision of the "fee bill" is advisable is true, but what demands more urgent action is a universal adherence by all physicians to at least the minimum rate per visit, per consultation, etc., and if there is any reduction to be made, let it be done after the bill has been rendered, with a distinct understanding that this is a concession from the regular rates. The greatest difficulty apparently comes from the want of unity in the profession and the willingness of so many to cut fees in order to secure practise. Let us become more neighborly—love one another, if you please—stand more closely together in matters that concern our highest instincts and the best aims of our profession and life, consider that in attending the sick we are not at a bargain counter, and take home to our own hearts and hearths that same charity and sweetness that we would claim from those who may some day minister to us. We are not willing to be overcharged that percentages may be given to others; so let us practise what we preach.

SOCIETY PROCEEDINGS.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, May 28, 1901.

Dr. D. W. Montgomery, the president, in the chair.

POTTS' FRACTURE.

Dr. H. M. Sherman: The deformity after Potts' fracture is not uncommon. When it exists only in a slight degree, the patient frequently succeeds in getting along, the disability being due to the fact that the bones work in a somewhat unaccustomed position, so that the lines of force are disturbed. By the condition in which the man was, with the foot in equino-valgus at the ankle and very rigid, it was evident that the limb was useless, and that is why the operation was done, and the foot restored to proper position. The line between the big and second toe and the crest of the tibia and the middle of the patella is restored, and the foot is not in the condition of the valgus. The sole rests on the floor, and the equinus condition has been entirely corrected. I think the operation is not done as frequently, perhaps, as it might be. I hoped to show another case of fracture at the elbow joint in which the ordinary gunstock deformity developed after the removal of the splint, but, unfortunately, the child fell a day or two ago and sprained the elbow, and could not be here for demonstration. The radiograph is of importance in these cases. We will often find the parts firm and sound to ordinary manual examination when there is deficient lime salt in the callus thrown out, and while the bones are united so that the patient can stand, a deformity may supervene after the treatment has ceased. In a radiograph taken even so late as a fortnight ago, all of two months after the operation, very little lime salts showed in the callus, only fibrous tissue, and I have been trying to find out from recent text-books on fractures (Scudder's and Beck's) how early calcification should show, but they do not say anything about it. That is rather an important point. Now, the other morning I was assisting in the resection of a badly-united phalanx, and there was no lime salt. The tissue thrown out was cut very easily by a scalpel. The cases which have usually come to me have been old ones, and I found in these that there was actual bone which had to be cut by a chisel.

SEPTIC GANGRENE.

Dr. H. M. Sherman: The condition found in this case seems to be possibly explained in this way: There has been a clot formed in the heart during some convulsions or during some of the time when there was a weak and rapid heart. The clot got washed out of the heart in several pieces, and these floated down the blood stream together, and at the division of the aorta into the two common iliacs, the bigger clot went to the right side, and the smaller clots to the left side, one stopping at the division of the right anterior and posterior tibial artery, and the others going to the left ankle, and into the cutaneous branches in the foot, and causing areas of gangrene in these parts.

Dr. Gross: It seems to me that the renal insufficiency had something to do with this case, although the heart alone might produce the gangrene, but the heart trouble was due to the renal insufficiency. The symptoms he had seem to be those of renal insufficiency, and which date far back, and which produced toxins which in turn produced that condition.

Dr. P. K. Brown: Was there any sugar in the urine?

Dr. Von Hoffman: No, I don't think there was any sugar in the urine.

Dr. A. E. Taylor: In some of these cases, the thrombi are due to sepsis or bacteria, and by regurgitation pass up through the vein, and we have obstruction due to a primary infection. In a recent paper by Leopold, he had septic infection of the uterus, with the use of rubber gloves. I do not mean to say that he had septicemia, but a mild endometritis. There is no doubt that phlegmasia alba dolens is of bacterial origin, and we have in all these cases a certain amount of septic infection, but not a general symptomatology. We do not have gangrene, but a mild form of septic infection. The marked frequency of thrombus formation, the so-called atheromatous aneurism due to endocarditis is striking. Frequently we find from thirty to fifty aneurisms in the brain in connection with septis disease and endarterial disease. These cases all seem to be due to sepsis.

Dr. H. M. Sherman: When Dr. Von Hoffman received my manuscript I asked him if that was enough. He said it was more than he wanted. I had not considered the septic side of the phenomenon at all, and supposed that the temperature was due to a certain amount of absorption along the line of separation. I thought possibly there had been in the heart, during some weak moments, a formation of clots, and that the patient had the good luck to have it all washed out at once.

Dr. H. Kugeler: I have nothing in particular to say, Mr. President, except that this resembles a condition of affairs which I have seen a number of times. It recalls to my mind typical cases of senile gangrene, a topic which got me into a scrap in Vienna. The question of senile gangrene came up, and I advocated high amputation, although the text-books of Billroth, Albert, Wyeth, etc., up to 1892, said in no case should amputation be done in senile gangrene, though advocating it in diabetic gangrene. The only proper way is to amputate and to amputate high, and where this is done, the patient will recover and get well. In one case, an old gentleman, fifty to fifty-two years of age, came to me with a sore on the great toe, a gangrenous spot, and for a while I tried to educate him up to a high amputation. In the meantime, he disappeared, and I heard he went to some one else, who amputated the toe; later the foot was amputated. Subsequently I heard they were going to take off the leg, and I told the parties that it would probably result in the gentleman's demise. It was so,—the gentleman died. The young stand expectant treatment a great deal better than the old, but when we get them fifty and over, and a condition of this kind is setting in, we must amputate high and at once, and it is usually necessary to amputate above the knee joint.

Dr. Geo. B. Somers: I have not had experience with any of the septic forms of gangrene, but I was reminded to-night of a case I had six or seven years ago, while in the receiving hospital. This form of gangrene was due to traumatic causes,—hot water. It seems a Chinaman was in the habit of washing his feet every night after work, and he sent one of his companions for a bucket of hot water. He in, and kept them there for some time. It cooked both feet. The destruction of tissue took the form of dry gangrene, and it extended only a short distance above the point of contact with the water, that is, both feet were gangrenous as high as the middle third of the leg. The accident occurred in San Jose, and he stayed there for two weeks without any medical treatment, and he was finally shipped up here by his friends. He was seen by some one down there who advised operation, but it was not done. When he fell into my hands the tissues were hard, but there was no sloughing whatever. The tissues were evidently quite dead. The situation was explained to the Chinaman, and the necessity of amputation shown. He submitted to the amputation of both legs, and recovered without trouble.

Dr. W. W. Kerr: In regard to the symptoms, they are identical with those found in many of the old heart cases where senile gangrene occurs. I have seen a number of these cases, and in nearly all of them my attention was first attracted to the condition by the patient complaining of one of two things: of what he thought to be an ingrowing toe-nail in the big toe, or gout in the ball of the foot. So frequently have I seen it, that when there is a senile heart, I always feel worried. From a pathological point of view, the changes you see are altogether different. I look at the clinical aspect of the case, and I think this has been noted often, insomuch that the writers on gout mention that the gouty paroxysm is simply an embolism or thrombus. There is a great similarity between the gouty paroxysm and the attacks on a man with senile gangrene, and it is hard to explain. It is also hard to explain the disappearance of the radial pulse in young men, and in men of middle life. I have two patients under forty-four, who have comparatively weak hearts, and who have palpitation, dyspnea and occasional angina, and in both the radial pulse has disappeared on the left side, and as far as sensation is concerned, there is no difference. In the old patients, we find a large number of cases in which the pulse has disappeared entirely, and without deficient circulation as far as nutrition is concerned.

Dr. W. I. Terry: Dr. Huntington and I thought we had found a case of Reynaud's disease in this man, and the history of hematoma gave weight to that idea. The pathological findings are at variance. As to the prognosis, the man complains of pain in the other leg, and I would like to know the outcome, as I parallel it with Dr. Sherman's case, and he may go through the same experience.

Dr. H. M. Sherman: I had the opportunity of watching one of Dr. Kerr's heart cases, which he had attended for a number of years, and which finally went through senile gangrene. The similarity between that case and mine, so far as the symptoms are concerned, is striking. Dr. Kerr's patient had burning in the foot, and went without shoes or slippers; later the feet and legs were cold, and it was impossible to get them to feel warm. There was also the congestion and the deep red color where the blood was stagnant, and the classical sequence of tissue appearance as gangrene supervened. My patient had a cold sensation in the sole of the foot, and could not get rid of it. He wore two socks with red pepper between them, but the cold sensation persisted. Later he had the blood stasis and the red discoloration. I am glad to hear that Dr. Kugeler advises the high operation, as that is practised always now, and other people take advantage of Dr. Kugeler, and also advise it. The teaching of to-day is to go above the knee, but this man wanted to save the knee, having no foot on the other side, which made me give ear to his wish more than I otherwise would have done. I don't like the anterio-posterior flap below the knee. I prefer the Stephen Smith flap, but the artificial leg maker asked for an anterio-posterior flap. In my case I did not take off the dressings of the day before previous to the amputation, and when Dr. Lewitt took off the bandage I was surprised, because it was such a fine-looking foot; it had a little wound on the dorsum, another on the sole, but the rest looked all right. Nothing satisfied me so much as when Dr. Taylor informed me that we did not get above the lesion. In regard to Dr. Terry's case, the prognosis does not seem to be very difficult to make. The same process will develop in the other leg, and I think that Dr. Huntington will finally cut off the other leg after a while. My man dates his lesion back to 1878. His first leg was amputated three years ago, and there, you see, is a time of twenty years. His right leg has run comparatively a short course, but I think you should be on the lookout for a process beginning in the left leg of Dr. Terry's case. Several methods were proposed for the unhealed stump as caustics or some particular dressing, and the use of hot air. It is claimed the hot air dilates the vessels, but I do not see how hot air will dilate vessels such as these, but it is possible that it might develop a collateral circulation or help to do so. I think that it will be a very unhappy result in Dr. Terry's case, still I would suggest that he try the hot air. It would be an interesting thing at any rate.

Dr. W. W. Kerr: Was he a mining man?

Dr. H. M. Sherman: I don't know what business he was engaged in at the time, but I heard he was in business in the city. He must have been a very energetic man, for he went to Nome with the unhealed stump and an artificial leg.

BOOK REVIEWS.

INTERNATIONAL CLINICS.

A quarterly of clinical lectures and especially-prepared articles on medicine, neurology, surgery, therapeutics, obstetrics, pediatrics, pathology, dermatology, diseases of the eye, ear, nose, and throat, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by Henry W. Catlett, A. M., M. D., Philadelphia, U. S. A., with the collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thos. G. Morton, M. D., of Philadelphia; Chas. H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburg; and John Harold, M. D., of London, with regular correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume IV, 10th Series, 1901, Philadelphia, J. B. Lippincott Co., 1901.

To the thoroughly progressive physician the means of keeping pace with the rapid strides of all branches of the profession is one of the important points to be considered. One of the practical and satisfactory sources of information is found in this quarterly, known as the "International Clinics." In the 10th Series, Volume IV, will be found articles from leaders in the world of medicine. Under Therapeutics is a paper on "Mosquitoes and the Prophylaxis of Malaria," by Prof. B. Grassi. A symposium on genito-urinary diseases is presented, giving the latest methods of treating these ailments. In "Medicine," Jas. J. Walsh, Ph. D., M. D., gives "Recent Advances in Diagnosis," while others equally valuable are to be found on special subjects. Under "Surgery," John B. Deaver, M. D., describes the technic in a series of clinical cases in his service at the German Hospital. Other contributors add clinical and laboratory data to complete a volume full of excellence.

INTERNATIONAL CLINICS.

A quarterly of clinical lectures and especially-prepared articles on medicine, neurology, surgery, therapeutics, obstetrics, pediatrics, pathology, dermatology, diseases of the eye, ear, nose, and throat, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by Henry W. Catlett, A. M., M. D., Philadelphia, U. S. A., with the collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thos. G. Morton, M. D., of Philadelphia; Chas. H. Reed, M. D., of Philadelphia; J. W. Ballantyne, M. D., of Edinburg; and John Harold, M. D., of London, with regular correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume I, 11th Series, 1901. J. B. Lippincott Co., Philadelphia, 1901.

Francis Delafield, M. D., D. Marx, Solomon Solis Cohen, M. D., are among the contributors to this volume, the former giving cases seen at clinic, Roosevelt Hospital. Dr. Marx treats of "The Normal Temperature Range," and Dr. Solis Cohen discusses "Pneumonia of Influenza and Its Treatment by Saline Infusions and Oxygen Inhalations; Acute Articular Rheumatism and Its Cardiac Complications."

Chas. A. Elsberg, M. D., describes "A New and Simple Method of Sterilizing Catgut by Boiling;" also "A New Method of Sterilizing Sponges by Boiling;" "An Application of a Well-Known Chemical Principle to the Sterilization of Materials for Surgical Operations."

Edmund W. Holmes, A. B., M. D., describes the technic of "Suprapubic Cystotomy," with a few of the indications for its use.

John B. Deaver, M. D., has a paper on gynecological and surgical clinical cases; and A. Doleris, M. D., discusses subarachnoid cocaine anesthesia in obstetrical cases.

The closing pages of the book are devoted to a "Review of the Progress in Medicine During the Year 1900," prepared by N. J. Blackwood, M. D.

Excellent plates and cuts illustrate the articles presented in this able work, aiding in the elucidation of the text, and adding beauty to a very satisfactory appearance.

"Abrams on the Heart." Diseases of the Heart; Their Diagnosis and Treatment. By Albert Abrams, A. M., M. D., San Francisco, Consulting Physician for Diseases of the Chest, Mt. Zion Hospital and the French Hospital. Illustrated. Pages, 172. Price, $1.00 net. G. P. Engelhard & Co., Chicago, 1900. In this little brochure the author discusses the subject of diseases of the heart entirely from a practical aspect. The results of his research are here given in complete and collected form for the first time, and the practical and effective methods of treatment which have proved successful are presented. The preface itself is laconic and pointed, and gives the author's ideas of what should be effected in the diagnosis and treatment of disease of the heart.

"A System of Physiologic Therapeutics." A Practical Exposition of the Methods, other than Drug-giving, Useful in the Treatment of the Sick. Edited by Solomon Solis Cohen, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia and Rush Hospitals, etc. Volume 1, "Electrotherapy," by George W. Jacoby. M. D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children, and the Craig Colony for Epileptics, etc. In two books. Book 1, Electro-Physics; Apparatus Required for the Therapeutic and Diagnostic Use of Electricity. With 163 illustrations. Philadelphia, P. Blakiston's Son & Co., 1012 Walnut St., 1901. This system, of which we have the first volume of the initial subject, "Electrotherapy," by Geo. W. Jacoby, of New York, is presented by Solomon Solis Cohen, M. A., M. D., and is the first of its kind published in America, or in the English language. There will be eleven volumes, neat in appearance, convenient in size, and excellent in paper and typography, dealing with drugless therapeutics.

These separate books will be complete, each in itself, yet constituting together a unified whole. The first volume on Electrotherapy is well arranged, is precise, and clear in statement. Empiricism is reduced to the minimum, careful diagnosis and study of the cases leading to the indications for treatment. The generally uninteresting and tiresome technical descriptions and mathematical formulas are given simply and plainly.

Other volumes promised are the second book of "Electrotherapy," containing special articles by Edward Jackson, A. M., M. D., of Denver, William Scheppegrell, M. D., New Orleans; Franklin H. Martin, M. D., Chicago, and others. "Climatology and Health Resorts, Including Mineral Springs." Two volumes, with maps, by F. Parker Weber, M. A., M. D., M. R. C. P., London, and Guy Hinsdale, A. M., M. D., Philadelphia. "Prophylaxis—Personal Hygiene—Nursing and Care of the Sick," by Harold C. Ernst, M. D., Boston, and Albert Abrams, M. D. (University of Heidelberg), San Francisco. "Diet-Therapy," by Nathan S. Davis, Jr., A. M., M. D., Chicago. "Mechanotherapy," illustrated, by John Kearsley Mitchell, M. D., Philadelphia, and Luther Gulick, M. D., Springfield, Mass. "Rest—Mental Therapeutics—Suggestion," by Francis X. Dercum, M. D., Philadelphia. "Hydrotherapy — Thermotherapy — Phototherapy—Balneology," by Dr. Wilhelm Winternitz, Vienna, and Dr. E. Heinrich Kitsch, Prague. "Pneumatotherapy and Inhalation Methods," by Dr. P. Tessier, Paris. "Serotherapy and Organotherapy—Blood-letting, etc.,—Principles of Therapeutics—Indexes and Digests," by Jos. McFarland, M. D., Philadelphia; O. F. Osborne, M. D., New Haven, Conn.; Frederick A. Packard, M. D., Philadelphia; the Editor, and Augustus A. Eshner, M. D., Philadelphia.

"Stringtown on the Pike," a tale of northernmost Kentucky, by John Uri Lloyd, author of "Etidorpha," etc., with illustrations, New York. Dodd, Mead & Co., 1901. This is a tale of dramatic interest, full of life, humor, and tragic scenes. It is in this author's lucid style and excellent diction, with a very satisfactory dialect for "old Cupe" and the other negroes of the days before the war. The lives, superstitions, the affections, and peculiar character of the often misunderstood colored people are given graphically. "Cupe" comes little short of the supernatural for an ignorant old negro, and he, with the mountaineers who indulge in feuds "to the very end," add interest and dash to a book filled from cover to cover with dramatic incidents. The plot and denouement center around the discovery of the distinguished author that the color reaction for strychnin is duplicated by a mixture of the alkaloids, hydrastin and morphin properly mixed, though neither alone will give it. In this work the learned writer shows clearly the chance for error to creep in in the most careful tests, and his estimate of expert evidence as he has seen it in many courts of justice.

TEXT-BOOK OF GYNECOLOGY.

Edited by Chas. A. L. Reed, A. M., M. D., President of the American Medical Association, 1900-1901; Gynecologist and Clinical Lecturer on Surgical Diseases of Women at the Cincinnati Hospital; Fellow of the American Association of Obstetricians and Gynecologists; Fellow of the British Gynecological Society; Corresponding Member of the National Academy of Medicine of Peru, etc. Illustrated by R. J. Hopkins. New York, D. Appleton & Co., 1901. In this work we have an excellent proof of what ability and determination will accomplish in a much-worked field. The editor of this book on gynecology has, with the aid and collaboration of writers of note in their respective subjects, presented a volume of value to the student and practitioner. Not only diseases of women from the view-point of a gynecologist alone, but from those of the general practitioner, the dermatologist, the pathologist, obstetrician, therapeutist, the neurologist, the artist. Necessarily, with careful arrangement into a consecutive homogeneous entity, the result is a satisfaction from any and all standpoints. Artistically the book is superior; in printing, paper, and binding, the publishers have done their part well. An excellent feature in the table of contents is the name of the contributor of the special article or paragraph opposite the subject, enabling the reader to determine the author of any paragraph in any chapter with ease. A comprehensive index completes a readable and helpful work.

"The History of Medicine in the United States." A collection of facts and documents relating to the history of medical science in this country, from the earliest English colonization to the year 1800, with a supplemental chapter on the discovery of anesthesia. By Francis Randolph Packard, M. D. Illustrated. Philadelphia and London, J. B. Lippincott Co., 1901. This is a most interesting volume to all in the profession of medicine, and to others who enjoy studying contemporaneous history. It is the first effort in preparing a general history of early medicine, and it is as complete as years of earnest work and a thoroughly equipped mind could make it. With so few available data ready for reference the task has been a laborious one, and only an intense love for the work could stimulate the author to continue, and only the pleasure of a strenuous task well done could compensate him for pioneer work in this line, unless it be that the praise and appreciation of the profession and students in general can add to the gratification of so earnest and able a writer.

"A Treatise on Appendicitis." By Geo. Ryerson Fowler, M. D., Professor of Surgery in the New York Polyclinic; Examiner in Surgery, Medical Examining Board of the Regents of the University of the State of New York; Surgeon the Methodist Episcopal Hospital; Surgeon-in-Chief to the Brooklyn Hospital; Senior Surgeon to the German Hospital; Consulting Surgeon St. Mary's Hospital, the Relief Hospital, and the Norwegian Hospital; Fellow of the New York Surgical Society; Fellow of the American Surgical Association; Fellow of the New York Academy of Medicine; Ex-President of the Medical Society of the Society of Kings; Ex-President of the Brooklyn Surgical Society. Second Edition, revised and enlarged. Philadelphia and London. J. B. Lippincott Co., 1900. One of the most complete, thorough, clear, and modern monographs yet presented on a subject of extreme surgical importance is the one above described, by George Ryerson Fowler, M. D. The first edition was an excellent treatise, and the second brings all the features up to date. Surgical procedure is described in detail, the steps of a thorough technique being explained. The medical treatment is not overlooked, a chapter being devoted to it. Pathology is given considerable space, and the cuts and illustrations are admirable, and aid markedly in elucidating the terse English of the author.

MEDICAL NEWS.

NOTES.

Dr. W. S. Thorne has gone to Europe for a well-earned vacation.

Dr. W. F. McNutt, Jr., who recently graduated at Howard, O., is in London doing post-graduate work.

Dr. Charles G. Levison announces the removal of his office to 1316 Van Ness Avenue, hours 1 to 3.

LICENSES GRANTED.

5917 Willis, Ellen Almira, Los Angeles, June 8, 1899, College of Physicians and Surgeons, Minneapolis, Minn.
5918 Worley, Harry F., Oakland, March 3, 1896, Keokuk Medical College, Iowa.
5919 Belyea, John H., Williston, N. D., March 8, 1889, College of Physicians and Surgeons, St. Louis, Mo.
5920 Boyer, J. Silas, Floriston, March 28, 1893, Rush Medical College, Ill.
5921 Burkelman, Arnold, New York, March 30, 1891, Bellevue Hospital Medical College, N. Y.
5922 Butts, John N., San Diego, March 29, 1898, Medical Department University of Nashville, Tenn.
5923 Campbell, H. Taylor, Los Angeles, March 29, 1898, Medical Department University of Nashville, Tenn.
5924 Clark, John R., San Francisco, June 12, 1895, College Physicians and Surgeons, N. Y.
5925 Crease, Frederick J., Little Compton, R. I., Jan. 15, 1899, Medical Department University South Tennessee.
5926 Crutcher, Ernest, Great Falls, Mont., March 1, 1879, Medical Department Vanderbilt University, Tenn.
5927 Dolloway, Louis M., New York, May 22, 1900, Medical Department Georgetown University, D. C.
5928 Draper, Alfred L., San Francisco, June 5, 1900, Cooper Medical College, Cal.
5929 Goodman, Celia W. T., Los Angeles, July 11, 1880, Medical Department University of Michigan.
5930 Hastings, Hill, Los Angeles, June 12, 1895, Medical Department University of Virginia, Va.
5931 Helman, Evelene, Michigan, June 27, 1899, American Medical Missionary College, Ill.
5932 Hickman, A. R., Bisbee, A. T., May 23, 1894, Rush Medical College, Ill.